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Language Beliefs and Practices of Caregivers in the Deep South

Maria Maldonado
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LANGUAGE BELIEFS AND PRACTICES OF CAREGIVERS IN THE DEEP SOUTH

A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Arts

in

The Department of Communication Sciences & Disorders

by
Maria Maldonado
B.S.Ed., University of Virginia, 2022
May 2024
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Abstract

The 30 million word gap refers to the disparity in early language exposure between low socioeconomic status (SES) children and their higher SES peers; a gap that is thought to negatively impact children’s language development and future academic success. Although many early intervention approaches have proven effective in promoting language development among low SES children, they often fall short in terms of cultural responsiveness, which in turn affects caregiver buy-in. Culturally and linguistically diverse children disproportionately live in poverty, as such there is a need for research to inform more responsive interventions that take a strengths-based approach and build on caregiver beliefs and practices. The purpose of the current study was to characterize the language beliefs and practices of caregivers in the Deep South, a culturally and linguistically diverse region characterized by high rates of poverty, for the purpose of informing responsive early language interventions and promoting caregiver buy-in. Eighty-three caregivers were invited to complete a survey that aimed to address the following questions: 1) What areas in child development are most important to caregivers? 2) What are caregiver beliefs and practices surrounding child language development? 3) What barriers do caregivers face in supporting their child’s language development? Differences were examined across racial and SES groups. We found that language development and problem solving skills were most important across all caregivers. There were differences in various beliefs. High SES and Black caregivers both believed children learn language more from interacting with people than watching TV. Playtime, morning, and night routines were the top contexts during which caregivers reported talking to their child. Not Black, high SES, and low SES caregivers all most frequently reported teachers as a person their child frequently interacts with, while Black caregivers most frequently reported grandparents. However, mothers were the person their child talks to most frequently across all caregivers. Black
caregivers were more likely to believe their own language abilities are a challenge in supporting their child’s language development, while Not Black caregivers were more likely to believe time is a challenge. We discuss the implications of our findings for promoting caregiver buy-in of interventions.
Chapter 1. Introduction

The 30 million word gap has been a topic of debate in child development research since Hart and Risley first published their landmark study in 1995. They famously reported a difference in language exposure between children of different socioeconomic status (SES) homes by collecting and analyzing home speech samples of low SES and high SES families. Specifically, they found that, by the age of 4, children from higher SES families heard, on average, 30 million more words than children from lower SES families (Hart & Risley, 1995). These findings ignited public concern, given disparities in children’s early language exposure have long-term consequences for future language outcomes and academic success (Golinkoff et al., 2019). As a result, Hart and Risley’s original study garnered substantial interest since its publication, sparking additional research and replications. Researchers have aimed to advance our understanding of how SES relates to child language development in an effort to revise existing evidenced-based language interventions. In the midst of this increasing interest in SES-based language differences, new studies have fueled a debate calling the size and importance of the 30 million word gap into question (Golinkoff et al., 2019; Sperry et al., 2019).

Dailey and Bergelson (2019) conducted a quantitative meta-analysis to synthesize the replications of Hart and Risley’s work. They combined data from 19 studies that analyzed the quantity of language input to children less than 3 years of age from various SES groups. Their results confirmed the original finding that children from low SES families hear less child-directed language input on average than children from high SES families. However, the average word gap between children from low and high SES homes was far smaller than the original study suggested. Dailey and Bergelson (2019) reported a 517 word-per-hour difference between low and high SES children compared to the 1,537 word-per-hour difference reported by Hart and Risley (1995).
Although the exact number in words heard by low and high SES children differs substantially across studies, the presence of a word gap, and its subsequent consequences for low SES children, is shared. Golinkoff et al. (2019) argued that although the word gap between low and high SES children might not be as large as initially reported, and there is substantial variability among low SES children, there is still a word gap and denying its existence or diminishing the importance of language exposure would mislead stakeholders and have unfortunate consequences for low SES children. Children’s early language exposure forms the foundation for their linguistic skills, cognitive abilities, and academic achievements, which later in life are crucial for employment opportunities and financial stability (Romeo et al., 2018). Given that low SES children, on average, receive less early language exposure than higher SES children, their linguistic skills and cognitive abilities may be limited, affecting their academic achievements, leading to lower income and less social mobility, and thus perpetuating the cycle of poverty.

On the other end of the debate, Sperry, Sperry, and Miller (2019) challenge Hart and Risley’s work and subsequent replications arguing that their definitions of language input were too narrow and, when expanded, any word gap on the basis of SES disappears. Their study expanded the definition of language exposure to include both language input directed from a primary caregiver to the child, as well as all other language produced to and around the child (e.g., by siblings, aunts/uncles, other primary caregivers, etc.). Accounting for these other important sources of language input not only diminishes any word gap on the basis of SES, but also takes into account socio-cultural differences in family structure. The authors further argued that the word gap takes a deficit perspective which can be consequential to the very families it is supposed to help. When the 30 million word gap argument takes a narrow focus considering only income, vocabulary, and child-directed speech, it oversimplifies the complex factors and social constructs contributing to
language disparities and places undue blame on low SES parents. Despite the fact that research surrounding the word gap can oversimplify complex factors, unjustly blame low SES parents, and perpetuate a harmful deficit perspective (Sperry et al., 2019), it is crucial to acknowledge the reality that low SES children, on average, do have smaller vocabularies than their higher SES peers (Dailey & Bergelson, 2019; Golinkoff et al., 2019). Furthermore, research has shown that early language skills have lifelong implications for individual success (Romeo et al., 2018).

As a result, substantial efforts have been made to create early intervention approaches aimed at bridging the word gap between high and low SES children. Examples of these approaches include Dialogic Reading, where conversational turn-taking during storybook reading is promoted in an effort to enhance word understanding (Whitehurst, 1988); Concept-Oriented Reading Instruction (CORI), where vocabulary is embedded within specific subject context (Guthrie, 1998); and Morphological Awareness Interventions, where word parts are taught to aid in word decoding (Bowers et al., 2010). These approaches are widely recognized for their effectiveness in promoting language development in children. Many of these approaches involve professionals working with caregivers to embed intervention strategies in their home environment, often through modifying caregiver language input, and thus require caregiver buy-in. For example, infant-directed speech (IDS) refers to the way people talk to young children in many Western societies. This speech uses a slower speech rate, fewer words per utterance, higher-than-average pitch, elongated vowels, and a narrower set of vocabulary words. Research has shown that IDS might be a tool to support early language learning. Ramirez et al. (2023), investigated maternal beliefs about IDS. They found that mothers underestimated their IDS usage; most mothers adjusted their speech when talking to their child regardless of their beliefs around IDS usage. These findings suggest that addressing parents’ misconceptions about IDS might strengthen its use in early language
intervention. This supports the need to investigate caregiver beliefs in order to address any misconceptions in order to promote intervention buy-in and efficacy.

Although many early intervention approaches have proven effective in promoting language development, they often fall short in terms of cultural responsiveness, which in turn affects caregiver buy-in. Oftentimes these early intervention approaches are developed and researched within white, mid to high SES, monolingual English-speaking contexts. This results in a lack of clinical applicability for, and buy-in from, individuals from low SES or culturally and linguistically diverse backgrounds (Larson et al., 2019). This is especially problematic given that, for the first time in U.S. history, the majority of babies born are culturally and linguistically diverse (Cohn, 2016). The term culturally and linguistically diverse (CLD) encompasses those who speak a language other than English, speak a language variety other than standardized American English, or belong to a minority ethnic or cultural group. CLD children disproportionately live in poverty and are therefore especially vulnerable to poor language outcomes (DeNavas-Walt & Proctor, 2015). As such, there is a growing need for research to inform more linguistically and culturally responsive interventions that take a strengths-based approach and build on caregiver current beliefs and practices.

Strengths-based approaches build on the language skills children from CLD backgrounds bring to preschool, instead of labeling these children as behind before they even start. Strengths-based approaches to language development tailor language learning activities to a child’s abilities and interests. For example, utilizing multisensory approaches, engaging in collaborative projects, or developing personalized learning materials empower children by building on their existing strengths which in turn increases engagement and efficacy. Research has shown that when early interventions take a more strengths-based approach and embrace a population’s unique cultural
and linguistic backgrounds, they have increased effectiveness, participation, and satisfaction (Larson et al., 2019). Attrition rates from intervention programs can be as high as 50% over the course of an academic year, further supporting the need for engaging and feasible intervention approaches that retain caregiver and child buy-in over time (Hindman et al., 2016). If interventions are adapted to take a more strengths-based approach, meeting caregivers where they currently are, they will receive greater caregiver buy-in, which would translate to greater intervention efficacy and promote bridging the word gap. A critical issue with existing research and interventions associated with the 30 million word gap is that CLD and low SES families are often merely participants. In these studies, researchers have collected language data from CLD or low SES households, assumed the underlying mechanisms at work, and generalized the results. Few studies have attempted to understand CLD or low SES caregiver practices and beliefs, which is problematic given that most intervention efforts are focused on modifying caregiver language input and thus require caregiver buy-in.

Only a few studies to date have examined CLD or low SES caregiver practices and beliefs. Hammer and Weiss (2000) investigated how low and mid SES African American mothers viewed their infant’s language development and language learning environment. They explained how mid SES white mothers treat their children as equal conversational partners that learn by watching and imitating intentionally. White mothers structure their conversations with turn taking, assume responsibility for communication breakdowns, adjust their speech by using less complex vocabulary and grammar, and set aside time to play and teach their children. Given the importance of turn-taking, numerous intervention efforts have been made to promote this form of communication among lower SES families; however, socioeconomic and cultural groups differ in their views and beliefs about caregiver-child interactions. By conducting semi-structured
interviews, Hammer and Weiss (2000) found that, despite agreement between mid SES African American mothers and white mothers on a number of caregiving practices, low SES African American mothers believed their children’s language developed naturally, had more limited teaching agendas, and appeared to underestimate their children’s abilities. As a result of this mismatch between low and mid SES caregiving beliefs and practices, corresponding intervention programs for lower SES children may result in misunderstandings and noncompliance by caregivers, ultimately becoming ineffective. As such, language interventions should account for differences in caregiving beliefs and practices to maximize the benefits of the intervention provided.

Another study by Hammer and colleagues (2007) investigated caregiving beliefs and literacy practices of Puerto Rican mothers. By providing Puerto Rican mothers with questionnaires about their caregiving practices, the authors found that mothers held both traditional and progressive beliefs regarding their children’s education. They believed schools are responsible for educating their children and parents should respect teacher practices and teach their children obedience, yet they also believed parents should teach their children new skills and children should be allowed to express themselves. These seemingly contradictory beliefs actually align with research showing Latino parents in the United States often retain their Latino cultural beliefs while also incorporating mainstream American cultural beliefs as a result of exposure over time (Reese and Gallimore, 2000). Hammer et al. (2007) further compared the beliefs and literacy practices of mothers who exposed their children to Spanish and English from birth, classified as home English communication (HEC), with those who did not expose their children to English until age 3 when they entered Head Start, classified as school English communication (SEC). Mothers in the HEC group reported teaching their children early literacy skills and reading to their children more
frequently compared to mothers in the SEC group. Because mothers in the HEC group had lived longer in the United States, it is possible that their increased exposure to the mainstream cultural model contributed to their incorporation of mainstream beliefs and practices. This reaffirms the need for culturally responsive language interventions that enhance existing family practices rather than replacing them.

The purpose of the current study was to characterize the language beliefs and practices of caregivers in the Deep South for the purpose of informing future research and early intervention. The Deep South is a culturally and linguistically diverse region characterized by significant rates of poverty, residential segregation, income inequality, and limited intergenerational mobility. In this region, children are exposed to and use a variety of English dialects, including both rural and urban forms of African American English (AAE) and Southern White English (SWE). Through a questionnaire sent out to eighty-three caregivers in the Deep South, this investigation sought to address the following research questions in order to identify ways to better support caregivers in promoting their child’s language development and bridging the word gap:

RQ1: What areas in child development are most important to caregivers?

RQ2: What are caregiver beliefs and practices surrounding child language development?

RQ3: What barriers do caregivers face in supporting their child’s language development?
Chapter 2. Methods

2.1. Participants

Eighty-three caregivers ($M_{age} = 32.18$, $SD_{age} = 5.12$) participated in this study. The requirements to be a participant were to 1) be over the age of 18, 2) a caregiver of a child under the age of 12, and 3) live in the Deep South. Participants were recruited through the existing Language, Environment and Neurodevelopment (LEND) lab participant database, local Head Start programs, and personal connections. All caregivers provided consent prior to completing the survey and were compensated with a $15 gift card for their time. This study was approved by the Institutional Review Board (IRBAM-23-0877) at Louisiana State University. Appendix A contains the IRB approval letter. Demographic information about these participants can be seen in Table 2.1.

Table 2.1. Demographic information.

<table>
<thead>
<tr>
<th></th>
<th>Less than High School</th>
<th>High School Diploma</th>
<th>Some College</th>
<th>Bachelor’s Degree</th>
<th>Master’s Degree</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1</td>
<td>16</td>
<td>18</td>
<td>25</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Parent Age (mean (SD))</td>
<td>24.00</td>
<td>30.12</td>
<td>30.61</td>
<td>35.00</td>
<td>36.17</td>
<td>37.20</td>
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<td></td>
<td>(8.16)</td>
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<td>(3.84)</td>
<td>(5.42)</td>
<td>(3.96)</td>
<td>(4.21)</td>
</tr>
<tr>
<td>Income Group</td>
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<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$10,000-$24,999</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$25,000-$49,999</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$50,000-$74,999</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>$75,000-$99,999</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$100,000-$149,999</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$150,000 or more</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Age (mean (SD))</td>
<td>4.00</td>
<td>4.44</td>
<td>4.78</td>
<td>4.60 (0.82)</td>
<td>4.67 (2.20)</td>
<td>5.20 (1.79)</td>
</tr>
<tr>
<td></td>
<td>(1.36)</td>
<td>(1.26)</td>
<td>(0.82)</td>
<td>(2.20)</td>
<td>(1.79)</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>Black</td>
<td>1</td>
<td>15</td>
<td>13</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Not Black</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>16</td>
<td>10</td>
</tr>
</tbody>
</table>
2.2. Survey

The online questionnaire was administered through Qualtrics and was accessible through personal mobile devices, tablets, and computers. Using Qualtrics’ “anonymize responses” feature no personal or identifying information was collected. Every participant invited to take the survey received a personalized link that could only be used once to prevent multiple responses from the same individual. At the beginning of the questionnaire, participants were provided with information regarding the purpose, procedures, duration, risks, benefits, alternatives, costs and compensation, participation, and contact information of investigators before consenting to participate in the research study. A total of 33 questions covered four sections (1) demographic information, (2) ranking areas of child development and academic subjects, (3) beliefs and practices of language development, and (4) barriers to supporting language development.

Demographic questions include (Q4) caregiver age, (Q5) zip code, (Q6) caregiver marital status, (Q7) caregiver highest level of education completed, (Q8) caregiver current employment status, (Q9) approximate annual household income, (Q10) ethnic or racial group(s) caregiver identifies with, (Q11) language(s) spoken at home, (Q12) other people the child(ren) frequently interacts with, (Q13) number of children under primary care. For the remaining questions, participants were asked to focus on ONE of their children under the age of 12. These questions include (Q15) relationship to child, (Q16) child’s age, gender, and if they have any history of language/developmental delay.

Next, participants were asked to (Q17) rank areas of child development in order, from most (1) to least (8) important, these included physical development, cognitive development, language development, social emotional development, literacy development, cultural development, play and exploration, and self-help skills. If their child is over the age of 6, participants were also asked to
(Q18) rank academic subjects in order, from most to least important, these included math, science, language arts, social studies, arts, physical education, foreign language, and computer science.

Following this, participants were asked whether they agree or disagree with statements about child language development (Q19). Participants were then asked (Q20) in what context they talk to their child the most, (Q21) what they talk to their child about the most, (Q22) who they believe their child talks to the most, (Q23) how often they introduce new vocabulary to their child, (Q24) how often they expand on their child’s statements, (Q25) how they react when their child makes a mistake while speaking, (Q26) who taught them how to support their child’s language development, who has taught their child the most about (Q27) talking, (Q28) reading, (Q29) math, and how confident they feel in their ability to support their child’s (Q30) talking and (Q31) reading.

Lastly, participants were asked (Q32) whether they experience any challenges (i.e. barriers) when supporting their child’s language development such as time, money, own language skills, transportation, information, and technological distractions. Participants were also invited to share any final thoughts at the conclusion of the survey (Q33). Appendix B contains the full survey.

2.3. Data Analysis

All statistical analyses were conducted using R (RStudio, version 4.3.2). We derived descriptive statistics from survey responses to provide an overview of demographic makeup of participants (e.g., caregiver age, household income level, caregiver education level, ethnic/racial group, child’s age; Table 2.1). These were calculated to profile the survey sample and determine if the survey sample is representative of the population in the Deep South.

We categorized race into two groups: Black ($N = 47$) and Not Black ($N = 36$). We defined Black as any participant who indicated their race as Black, and Not Black was defined by any participant who defined their race as White ($N = 31$), American Indian or Alaska Native ($N = 1$),
Asian ($N = 3$), or Hispanic ($N = 1$). We divided income into two groups: high SES ($N = 50$) and low SES ($N = 33$). We defined high SES by participants who indicated their income level is $50,000 or above and low SES by participants who indicated their income level is $49,999 or below. Independent samples t-tests were done to identify statistically significant differences in survey answers by race and SES.

We obtained the mean and standard deviation of caregiver rankings of areas of development (Q17) by race and income. We ran independent samples t-tests to identify any statistically significant differences in participant rankings on the basis of race or income. We determined the percentage of participants who agreed with each positive or negative statement about child development (Q19) by race and income. Negative statements were reverse coded to facilitate interpretation before being converted into percentages. We ran independent samples t-tests to identify any statistically significant differences in the percentage of participants who agreed with each statement on the basis of race or income. We computed the frequencies for when caregivers talk to their child most (Q20), who children talk to most (Q22), and caregiver confidence in supporting their child’s language development (Q30) by race and income. We computed the percentages of people children frequently interact with (Q12), the people who taught caregivers how to support their child’s language development (Q26), and barriers caregivers face in supporting their children’s language development (Q32) by race and income. We ran independent samples t-tests to identify any statistically significant differences in the percentages of participants who indicated each response on the basis of race or income.
Chapter 3. Results

3.1. What areas in child development are most important to caregivers?

We asked caregivers to rank areas of child development, in order, from most important (1) to least important (8). A lower number indicates that area of child development was more important to caregivers.

Black caregivers considered language development to be the most important aspect of child development ($M = 2.57$, $SD = 1.43$; Table 3.1). Not Black caregivers considered problem-solving to be the most important aspect of child development ($M = 2.42$, $SD = 1.48$). Black caregivers believed physical and literacy development were significantly more important than Not Black caregivers (physical: $t(79.36) = -3.84$, $p < .001$; literacy: $t(68.57) = -3.60$, $p < .001$). Not Black caregivers believed emotional development and creativity were significantly more important than Black caregivers (emotional: $t(73.85) = 4.56$, $p < .001$; creativity: $t(76.55) = 3.60$, $p < .001$). Black and Not Black caregivers did not significantly differ in their rankings of importance for the domains of problem solving, language development, culture, and basic needs.

Table 3.1. Ranking areas of child development, organized by race

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Problem Solving</th>
<th>Emotional</th>
<th>Language</th>
<th>Literacy</th>
<th>Culture</th>
<th>Creativity</th>
<th>Basic Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>4.25</td>
<td>2.94</td>
<td>5.06</td>
<td>2.57</td>
<td>3.32</td>
<td>6.45</td>
<td>6.00</td>
<td>5.40</td>
</tr>
<tr>
<td></td>
<td>(2.16)</td>
<td>(1.77)</td>
<td>(1.70)</td>
<td>(1.43)</td>
<td>(1.72)</td>
<td>(1.79)</td>
<td>(2.02)</td>
<td>(2.19)</td>
</tr>
<tr>
<td>Not Black</td>
<td>5.97</td>
<td>2.42</td>
<td>3.31</td>
<td>2.92</td>
<td>4.83</td>
<td>6.64</td>
<td>4.42</td>
<td>5.50</td>
</tr>
<tr>
<td></td>
<td>(1.90)</td>
<td>(1.48)</td>
<td>(1.77)</td>
<td>(1.90)</td>
<td>(2.02)</td>
<td>(1.27)</td>
<td>(1.96)</td>
<td>(2.12)</td>
</tr>
<tr>
<td>Sig. Diff.</td>
<td>&lt; 0.001</td>
<td>.15</td>
<td>&lt; 0.001</td>
<td>.37</td>
<td>&lt; 0.001</td>
<td>.57</td>
<td>&lt; 0.001</td>
<td>.84</td>
</tr>
</tbody>
</table>

High SES caregivers considered problem solving to be the most important aspect of child development ($M = 2.38$, $SD = 1.46$; Table 3.2). Low SES caregivers considered language to be the most important aspect of child development ($M = 2.61$, $SD = 1.54$). High SES caregivers believed problem solving was significantly more important than low SES caregivers ($t(57.24) = -2.18$, $p =$
Low SES caregivers believed physical development was significantly more important than high SES caregivers ($t(65.05) = 2.14, p = .04$). High SES and low SES caregivers did not significantly differ in their rankings of importance for the domains of emotional development, language development, literacy, culture, creativity, and basic needs.

Table 3.2. Ranking areas of child development, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Problem Solving</th>
<th>Emotional</th>
<th>Language</th>
<th>Literacy</th>
<th>Culture</th>
<th>Creativity</th>
<th>Basic Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>5.42</td>
<td>2.38</td>
<td>3.98</td>
<td>2.80</td>
<td>4.28</td>
<td>6.74</td>
<td>4.98</td>
<td>5.42</td>
</tr>
<tr>
<td>SES</td>
<td>(2.10)</td>
<td>(1.46)</td>
<td>(1.91)</td>
<td>(1.73)</td>
<td>(2.07)</td>
<td>(1.35)</td>
<td>(2.11)</td>
<td>(2.04)</td>
</tr>
<tr>
<td>Low</td>
<td>4.36</td>
<td>3.21</td>
<td>4.79</td>
<td>2.61</td>
<td>3.52</td>
<td>6.21</td>
<td>5.82</td>
<td>5.48</td>
</tr>
<tr>
<td>SES</td>
<td>(2.26)</td>
<td>(1.85)</td>
<td>(1.88)</td>
<td>(1.54)</td>
<td>(1.80)</td>
<td>(1.85)</td>
<td>(2.10)</td>
<td>(2.33)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.04</td>
<td>.03</td>
<td>.06</td>
<td>.59</td>
<td>.08</td>
<td>.16</td>
<td>.08</td>
<td>.90</td>
</tr>
</tbody>
</table>

3.2. What are caregiver beliefs and practices surrounding child language development?

We asked caregivers whether they agreed or disagreed with positive and negative statements regarding child development. In Table 3.3 and Table 3.4 the negative statements from the survey were reverse coded and have been reworded to positive statements below to facilitate interpretation where a higher percentage indicates a positive statement that was agreed upon by more participants.

Black caregivers were significantly more likely to believe that adding more words or correcting a child’s speech helps them learn more words ($M = 100.00\%, SD = 0.00\%, t(35.00) = 3.92, p < .001$; Table 3.3). Not Black caregivers were significantly more likely to believe that children learn language more from interacting with people than from watching TV ($M = 94.44\%, SD = 23.23\%, t(69.44) = -3.80, p < .001$).
Table 3.3 Beliefs about child development, organized by race

<table>
<thead>
<tr>
<th>Belief</th>
<th>% Agreement with Statement</th>
<th>Sig. Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children learn language by talking to adults.</td>
<td>97.87% (14.59%)</td>
<td>.85</td>
</tr>
<tr>
<td>Children learn to talk at different ages.</td>
<td>82.98% (37.99%)</td>
<td>.23</td>
</tr>
<tr>
<td>Reading stories to children helps them learn more words and talk more.</td>
<td>100.00% (0.00%)</td>
<td>~</td>
</tr>
<tr>
<td>Children between 1-1.5 years know about 20-50 words.</td>
<td>85.11% (35.99%)</td>
<td>.61</td>
</tr>
<tr>
<td>Children who grow up hearing many languages learn to talk at the same time as children who only hear one language.</td>
<td>59.57% (49.61%)</td>
<td>.36</td>
</tr>
<tr>
<td>Talking to children using “baby-talk” helps them learn language.</td>
<td>31.91% (47.12%)</td>
<td>.20</td>
</tr>
<tr>
<td>It is important to start speech therapy for a child with a speech delay as early as possible for it to work better.</td>
<td>95.74% (20.40%)</td>
<td>.27</td>
</tr>
<tr>
<td>Children learn language more from interacting with people than from watching TV.</td>
<td>63.83% (48.57%)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Learning to read and write is not separate from learning to talk.</td>
<td>51.06% (50.53%)</td>
<td>.88</td>
</tr>
<tr>
<td>Adding more words or correcting a child’s speech helps them learn more words.</td>
<td>100.00% (0.00%)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

High SES caregivers were significantly more likely than low SES caregivers to believe that children learn to talk at different ages ($M = 96.00\%$, $SD = 19.79\%$, $t(40.19) = 2.79$, $p = .008$; Table 3.4), children who grow up hearing many languages learn to talk at the same time as children who only hear one language ($M = 74.00\%$, $SD = 44.31\%$, $t(62.04) = 2.36$, $p = .02$), and that children learn language more from interacting with people than from watching TV ($M = 88.00\%$, $SD = 32.83\%$, $t(50.41) = 2.79$, $p = .007$).
Table 3.4. Beliefs about child development, organized by SES

<table>
<thead>
<tr>
<th>Belief</th>
<th>% Agreement with Statement</th>
<th>Sig. Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High SES</td>
<td>Low SES</td>
</tr>
<tr>
<td>Children learn language by talking to adults.</td>
<td>96.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td>(19.79%)</td>
<td>(0.00%)</td>
</tr>
<tr>
<td>Children learn to talk at different ages.</td>
<td>96.00%</td>
<td>72.73%</td>
</tr>
<tr>
<td></td>
<td>(19.79%)</td>
<td>(45.23%)</td>
</tr>
<tr>
<td>Reading stories to children helps them learn more words and talk more.</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td>(0.00%)</td>
<td>(0.00%)</td>
</tr>
<tr>
<td>Children between 1-1.5 years know about 20-50 words.</td>
<td>88.00%</td>
<td>84.85%</td>
</tr>
<tr>
<td></td>
<td>(32.83%)</td>
<td>(36.41%)</td>
</tr>
<tr>
<td>Children who grow up hearing many languages learn to talk at the same time as children who only hear one language.</td>
<td>74.00%</td>
<td>48.48%</td>
</tr>
<tr>
<td></td>
<td>(44.31%)</td>
<td>(50.75%)</td>
</tr>
<tr>
<td>Talking to children using “baby-talk” helps them learn language.</td>
<td>24.00%</td>
<td>30.30%</td>
</tr>
<tr>
<td></td>
<td>(43.14%)</td>
<td>(46.67%)</td>
</tr>
<tr>
<td>It is important to start speech therapy for a child with a speech delay as early as possible for it to work better.</td>
<td>90.00%</td>
<td>96.97%</td>
</tr>
<tr>
<td></td>
<td>(30.30%)</td>
<td>(17.41%)</td>
</tr>
<tr>
<td>Children learn language more from interacting with people than from watching TV.</td>
<td>88.00%</td>
<td>60.61%</td>
</tr>
<tr>
<td></td>
<td>(32.83%)</td>
<td>(49.62%)</td>
</tr>
<tr>
<td>Learning to read and write is not separate from learning to talk.</td>
<td>58.00%</td>
<td>42.42%</td>
</tr>
<tr>
<td></td>
<td>(49.86%)</td>
<td>(50.19%)</td>
</tr>
<tr>
<td>Adding more words or correcting a child’s speech helps them learn more words.</td>
<td>84.00%</td>
<td>90.91%</td>
</tr>
<tr>
<td></td>
<td>(37.00%)</td>
<td>(29.00%)</td>
</tr>
</tbody>
</table>

3.3. When do caregivers talk to their child most?

We asked caregivers to indicate when they talked to their child most to identify the most common contexts for language interactions within caregiver-child relationships and note any differences on the basis of race or SES. A higher number indicates a higher frequency of caregivers who talk to their children in each context.

A majority of Black caregivers reported talking to their child most during playtime ($N = 11$), followed by morning routine ($N = 10$). A majority of Not Black caregivers reported talking to
their child most during night routine \((N = 11)\), followed by playtime \((N = 9)\). See Table 3.5 for a distribution of these frequencies.

Table 3.5. Times when caregivers speak to their child most, organized by race

<table>
<thead>
<tr>
<th></th>
<th>Playtime</th>
<th>Mealtime</th>
<th>Bedtime</th>
<th>Car rides</th>
<th>Storytime</th>
<th>TVtime</th>
<th>Morning routine</th>
<th>Night routine</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>10</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Not Black</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

A majority of high SES caregivers reported talking to their child most during playtime \((N = 13)\), followed by night routine \((N = 12)\). A majority of low SES caregivers reported talking to their child most during morning routine \((N = 9)\), followed by playtime \((N = 7)\). Across all caregivers, other answers included during “homeschool”, “after school”, and “weekends.” See Table 3.6 for a distribution of these frequencies.

Table 3.6. Times when caregivers speak to their child most, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Playtime</th>
<th>Mealtime</th>
<th>Bedtime</th>
<th>Car rides</th>
<th>Storytime</th>
<th>TVtime</th>
<th>Morning routine</th>
<th>Night routine</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>13</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Low SES</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

3.4. Who are other people a child frequently interacts with?

We asked caregivers to indicate any people their child frequently interacts with to identify a child’s frequent social contacts and note any differences on the basis of race or SES. A higher percentage indicates a person reported by more participants.

Black caregivers were most likely to report a grandparent as a person their child frequently interacts with \((M = 85.11\%, \ SD = 35.99\%); Table 3.7\). Not Black caregivers were most likely to report a teacher as a person their child frequently interacts with \((M = 94.44\%, \ SD = 23.23\%); Not Black caregivers were significantly more likely to report another caregiver, friend, and teacher as
people their child frequently interacts with (caregiver: \( t(80.73) = -2.13, p = .04 \); friend: \( t(80.86) = -2.21, p = .03 \); teacher: \( t(76.23) = -1.95, p = .05 \)).

Table 3.7. Other people a child frequently interacts with, with organized by race

<table>
<thead>
<tr>
<th></th>
<th>Other Caregiver</th>
<th>Grandparents</th>
<th>Uncles/Aunts</th>
<th>Siblings</th>
<th>Friend</th>
<th>Teacher</th>
<th>Baby sitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>59.57% (49.61%)</td>
<td>85.11% (35.99%)</td>
<td>65.96% (47.90%)</td>
<td>68.09% (47.12%)</td>
<td>65.96% (47.90%)</td>
<td>80.85% (39.77%)</td>
<td>6.38% (24.71%)</td>
</tr>
<tr>
<td>Not Black</td>
<td>80.56% (40.14%)</td>
<td>80.56% (50.00%)</td>
<td>58.33% (46.72%)</td>
<td>69.44% (35.07%)</td>
<td>86.11% (23.23%)</td>
<td>94.44% (37.80%)</td>
<td></td>
</tr>
</tbody>
</table>

Both high and low SES caregivers were most likely to report a teacher as a person their child frequently interacts with (high SES: \( M = 86.00\% \), \( SD = 35.05\% \); low SES: \( M = 87.88\% \), \( SD = 33.14\% \); Table 3.8). High SES caregivers were significantly more likely to report another caregiver as a person their child frequently interacts with (\( t(56.02) = 3.22, p = .002 \)). Across all caregivers, other answers included “godparents” and “cousins.”

Table 3.8. Other people a child frequently interacts with, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Other Caregiver</th>
<th>Grandparents</th>
<th>Uncles/Aunts</th>
<th>Siblings</th>
<th>Friends</th>
<th>Teacher</th>
<th>Baby sitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>82.00% (38.81%)</td>
<td>82.00% (38.81%)</td>
<td>64.00% (48.49%)</td>
<td>66.00% (47.85%)</td>
<td>74.00% (44.31%)</td>
<td>86.00% (35.05%)</td>
<td>14.00% (35.05%)</td>
</tr>
<tr>
<td>Low SES</td>
<td>48.48% (50.75%)</td>
<td>84.85% (36.41%)</td>
<td>60.61% (49.62%)</td>
<td>72.73% (45.23%)</td>
<td>75.76% (43.52%)</td>
<td>87.88% (33.14%)</td>
<td>6.06% (24.23%)</td>
</tr>
</tbody>
</table>

Sig. Diff. .002 .74 .76 .52 .86 .81 .23

3.5. Who does a child talk to most?

We asked caregivers to indicate who the one person their child talks to the most is, to identify a child’s most frequent conversational partner and note any differences on the basis of race or SES. A higher number indicates that person was most frequently reported by caregivers as someone their child talks to the most.
The majority of Black caregivers reported that their child talks most to their mother \((N = 33)\), followed by their sibling \((N = 5)\). The majority of Not Black caregivers reported that their child talks most to their mother \((N = 28)\), followed by their father \((N = 3)\). See Table 3.9 for a list of frequencies aggregated by race.

Table 3.9. Who children speak to most often, organized by race

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th>Father</th>
<th>Sibling</th>
<th>Uncles/Aunts</th>
<th>Grandparent</th>
<th>Teacher</th>
<th>Friend</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>33</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Not Black</td>
<td>28</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

The majority of high SES caregivers reported that their child talks most to their mother \((N = 40)\), followed by their sibling \((N = 4)\). The majority of low SES caregivers reported that their child talks most to their mother \((N = 21)\), followed by their grandparent \((N = 4)\). Across all caregivers, other answers included “speech therapist” and “both parents equally.” See Table 3.10 for a list of frequencies aggregated by SES.

Table 3.10. Who children speak to most often, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th>Father</th>
<th>Sibling</th>
<th>Uncles/Aunts</th>
<th>Grandparent</th>
<th>Teacher</th>
<th>Friend</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>40</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Low SES</td>
<td>21</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

3.6. What barriers do caregivers face in supporting their child’s language development?

We asked caregivers to indicate whether they experienced any of the following barriers to supporting their child’s language development: time, money, their own language skills, transportation, information, or technological distractions. A higher percentage reflects a barrier that was experienced by more participants.
Black caregivers believed their child’s preference for watching TV/videos is the biggest challenge they face \( (M = 34.04\%, \ SD = 47.90\%); \) Table 3.11). Not Black caregivers believed that time is the biggest challenge they face \( (M = 50.00\%, \ SD = 50.71\%); \) Black caregivers were significantly more likely to believe that their own language abilities are a challenge \( (t(63.80) = 2.78, \ p = .007); \) Not Black caregivers were significantly more likely to believe that time is a challenge \( (t(57.70) = -3.81, \ p < .001); \)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>% Experiencing</th>
<th>Challenge</th>
<th>Sig. Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is difficult to find time to support my child’s language development”</td>
<td>12.77% (33.73%)</td>
<td>50.00% (50.71%)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>“Books and educational resources are expensive; I wish I had more affordable options”</td>
<td>31.91% (47.12%)</td>
<td>19.44% (40.14%)</td>
<td>.20</td>
</tr>
<tr>
<td>“I worry that my limited vocabulary might affect my child’s language growth”</td>
<td>21.28% (41.37%)</td>
<td>2.78% (16.67%)</td>
<td>.007</td>
</tr>
<tr>
<td>“Getting to the local library or school can be difficult”</td>
<td>12.77% (33.73%)</td>
<td>8.33% (28.03%)</td>
<td>.52</td>
</tr>
<tr>
<td>“I am not always sure how to best support my child’s language development, I wish I had more information on this”</td>
<td>27.66% (45.22%)</td>
<td>30.56% (46.72%)</td>
<td>.78</td>
</tr>
<tr>
<td>“Most of the time my child prefers to watch TV or videos than play with me”</td>
<td>34.04% (47.90%)</td>
<td>19.44% (40.14%)</td>
<td>.14</td>
</tr>
</tbody>
</table>

High SES caregivers believed time is the biggest challenge they face \( (M = 32.00\%, \ SD = 47.12\%); \) Table 3.12). Low SES caregivers believed income is the biggest challenge they face \( (M = 36.36\%, \ SD = 48.85\%); \) There were no significant differences in challenges faced by SES.
Table 3.12. Barriers for supporting child development, organized by SES

<table>
<thead>
<tr>
<th>Challenge</th>
<th>% Experiencing Challenge</th>
<th>Sig. Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is difficult to find time to support my child’s language development”</td>
<td>High SES: 32.00% (47.12%)</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>Low SES: 24.24% (43.52%)</td>
<td></td>
</tr>
<tr>
<td>“Books and educational resources are expensive; I wish I had more affordable options”</td>
<td>High SES: 20.00% (40.41%)</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>Low SES: 36.36% (48.85%)</td>
<td></td>
</tr>
<tr>
<td>“I worry that my limited vocabulary might affect my child’s language growth”</td>
<td>High SES: 14.00% (35.05%)</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>Low SES: 12.12% (33.14%)</td>
<td></td>
</tr>
<tr>
<td>“Getting to the local library or school can be difficult”</td>
<td>High SES: 10.00% (30.30%)</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Low SES: 12.12% (33.14%)</td>
<td></td>
</tr>
<tr>
<td>“I am not always sure how to best support my child’s language development, I wish I had more information on this”</td>
<td>High SES: 26.00% (44.31%)</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>Low SES: 33.33% (47.87%)</td>
<td></td>
</tr>
<tr>
<td>“Most of the time my child prefers to watch TV or videos than play with me”</td>
<td>High SES: 24.00% (43.14%)</td>
<td>.37</td>
</tr>
<tr>
<td></td>
<td>Low SES: 33.33% (47.87%)</td>
<td></td>
</tr>
</tbody>
</table>

3.7. How confident do caregivers feel in supporting their child’s language development?

We asked caregivers to indicate their confidence in supporting their child’s language development to identify caregiver confidence levels and note any differences on the basis of race or SES. A higher number indicates caregivers were more confident in supporting their child’s language development. The majority of Black (N = 31) and Not Black (N = 20) caregivers reported feeling very confident in supporting their child’s language development. Frequencies of confidence organized by race can be found in Table 3.13.

Table 3.13. Confidence in supporting child’s language development, organized by race

<table>
<thead>
<tr>
<th>Very Confident</th>
<th>Confident</th>
<th>Somewhat Confident</th>
<th>Not Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>31</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Not Black</td>
<td>20</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

The majority of high SES (N = 27) and low SES (N = 24) caregivers reported feeling very confident in supporting their child’s language development. Across all caregivers, regardless of race or SES, 93% reported feeling either confident (N = 51) or very confident (N = 26) in
supporting their child’s language development. Only 7% of caregivers who participated in this survey reported feeling either somewhat confident ($N = 4$) or not confident ($N = 2$). Frequencies of confidence organized by SES can be found in Table 3.14.

### Table 3.14. Confidence in supporting child’s language development, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Very Confident</th>
<th>Confident</th>
<th>Somewhat Confident</th>
<th>Not Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>27</td>
<td>19</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Low SES</td>
<td>24</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

#### 3.8. Who taught caregivers to support their child’s language development?

We asked caregivers to select any people who taught them how to support their child’s language development to identify common sources of information. A higher percentage indicates caregivers were most supported by that individual.

Both Black and Not Black caregivers were most likely to report themselves as the person who taught them how to support their child’s language development (Black: $M = 57.45\%$, $SD = 49.98\%$; Not Black: $M = 58.33\%$, $SD = 50.00\%$; Table 3.15). There were no statistically significant differences in who taught caregivers to support their child’s language development on the basis of race.

### Table 3.15. Who taught caregivers how to support their child, organized by race

<table>
<thead>
<tr>
<th></th>
<th>Myself</th>
<th>Parents/Grandparents</th>
<th>Teachers</th>
<th>Doctors</th>
<th>Friends/Other Parents</th>
<th>No One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>57.45% (49.98%)</td>
<td>53.19% (50.44%)</td>
<td>23.40%</td>
<td>23.40%</td>
<td>14.89% (35.99%)</td>
<td>14.89%</td>
</tr>
<tr>
<td>Not Black</td>
<td>58.33% (50.00%)</td>
<td>41.67% (50.00%)</td>
<td>22.22%</td>
<td>16.67%</td>
<td>22.22% (42.16%)</td>
<td>8.33%</td>
</tr>
<tr>
<td>Sig. Diff.</td>
<td>.94</td>
<td>.30</td>
<td>.90</td>
<td>.45</td>
<td>.41</td>
<td>.35</td>
</tr>
</tbody>
</table>

High SES caregivers were most likely to report themselves as the person who taught them how to support their child’s language development ($M = 62.00\%$, $SD = 49.03\%$; Table 3.16). Low
SES caregivers were most likely to report their parents/grandparents as the person who taught them how to support their child’s language development \((M = 66.67\%, SD = 47.87\%)\). Low SES caregivers were significantly more likely to report teachers and parents/grandparents as the people who taught them to support their child’s language development (teachers: \(M = 36.36\%, SD = 48.85\%\), \(t(53.41) = -2.27, p = .03\)); parents/grandparents: \(M = 66.67\%, SD = 47.87\%\), \(t(69.27) = -2.84, p = .006\)).

Table 3.16. Who taught caregivers how to support their child, organized by SES

<table>
<thead>
<tr>
<th></th>
<th>Myself</th>
<th>Parents/Grandparents</th>
<th>Teachers</th>
<th>Doctors</th>
<th>Friends/Other Parents</th>
<th>No One</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>62.00%</td>
<td>36.00%</td>
<td>14.00%</td>
<td>14.00%</td>
<td>16.00%</td>
<td>10.00%</td>
</tr>
<tr>
<td>SES</td>
<td>(49.03%)</td>
<td>(48.49%)</td>
<td>(35.05%)</td>
<td>(35.05%)</td>
<td>(37.03%)</td>
<td>(30.30%)</td>
</tr>
<tr>
<td>Low</td>
<td>51.52%</td>
<td>66.67%</td>
<td>36.36%</td>
<td>30.30%</td>
<td>21.21%</td>
<td>15.15%</td>
</tr>
<tr>
<td>SES</td>
<td>(50.75%)</td>
<td>(47.87%)</td>
<td>(48.85%)</td>
<td>(46.67%)</td>
<td>(41.51%)</td>
<td>(36.41%)</td>
</tr>
<tr>
<td>Sig. Diff.</td>
<td>.35</td>
<td><strong>.006</strong></td>
<td><strong>.03</strong></td>
<td>.09</td>
<td>.56</td>
<td>.50</td>
</tr>
</tbody>
</table>
Chapter 4. Discussion

4.1. Overview

Acknowledging the importance of a child’s early language development is essential, considering the lifelong impact language skills have upon social and academic success (Pace et al., 2017). On average, low SES children have smaller vocabularies than their higher SES peers, a difference which is often referred to as the “30-million word gap” (Hart & Risley, 1995, Dailey & Bergelson, 2019; Golinkoff et al., 2019). While intervention approaches have been developed to support early language development among lower SES children, many lack cultural responsiveness (Larson et al., 2019). Culturally and linguistically diverse children disproportionality live in poverty, supporting the need for research to inform more responsive interventions that build on the current beliefs and practices of caregivers from different backgrounds (DeNavas-Walt & Proctor, 2015). This is especially important considering many intervention programs experience high attrition rates (Hindman et al., 2016). By taking a strengths-based approach and meeting caregivers where they are, interventions will likely be more successful by getting caregiver buy-in.

Few studies have given caregivers themselves a voice to express their beliefs and practices for supporting their child’s development (Hammer & Weiss, 2000; Hammer et al., 2007). By directly surveying caregivers in the Deep South, a culturally and linguistically diverse region characterized by high rates of poverty, we were able to identify various caregiver beliefs and practices, on the basis of race and SES. Language development and problem solving skills were most important across all caregivers. There were differences on a number of beliefs about child language development, however, high SES and Black caregivers both believed children learn language more from interacting with people than watching TV. Across all caregivers, playtime,
morning, and night routines were the contexts in which caregivers talk to their child most. Mothers were identified as the person their child talks to most frequently across all caregivers. However, Not Black, high SES, and low SES caregivers reported teachers as a person their child frequently interacts with, while Black caregivers reported grandparents as the person their child most frequently interacts with. All caregivers, regardless of SES, reported facing similar challenges in supporting their child’s language development; however, there were differences in challenges faced by caregivers on the basis of race. Black caregivers were more likely to believe that their own language abilities are a challenge to supporting their child’s language development, while Not Black caregivers were more likely to believe that time is their biggest challenge. By considering these beliefs and practices, we can help inform interventions in order to enhance caregiver buy-in and, subsequently, intervention efficacy.

4.2. Areas of Child Development that are Most Important to Caregivers

Language development and problem-solving skills were most important to all caregivers. Language development was most important to Black and low SES caregivers, while problem-solving was most important to Not Black and high SES caregivers. There were significant differences in the rankings of areas of child development. On the basis of race, Black caregivers believed physical and literacy development were significantly more important, while Not Black caregivers believed emotional development and creativity were significantly more important. High SES caregivers believed problem solving was significantly more important, while low SES caregivers believed physical development was significantly more important. The finding that language development was most important to Black and low SES caregivers supports participation in language interventions by both of these groups, as they are more likely to support interventions aimed at improving children’s language skills given this is of high importance to them.
4.3. Beliefs and Practices Surrounding Child Language Development

Given that language development was rated highly across all caregivers, we examined caregiver beliefs surrounding language development. There were significant differences in beliefs of statements regarding child development. Both Not Black and high SES caregivers were significantly more likely to believe that children learn language more from interacting with people than from watching TV. There is an ongoing debate as to whether children learn language from watching TV, with some researchers suggesting TV can be educational (Wright et al., 2001), and other researchers raising concerns about passive consumption and excessive screen time (Chonchaiya & Pruksananonda, 2008). Although TV can offer opportunities to teach children certain skills, its’ efficacy as an educational tool requires caregivers choose high-quality, educational content that is actively co-viewed with interactive discussions (Daly, 2019). It would be beneficial to instruct all caregivers on using TV as an educational tool by pinpointing which programs are most supportive of child learning and by encouraging active co-viewing.

Black caregivers were significantly more likely to believe that adding more words or correcting a child’s speech helps them learn more words. These caregivers would likely support and adopt an intervention approach like Enhanced Milieu Teaching (EMT) which has been shown to be effective in promoting language in children with language and cognitive impairments (Kaiser & Roberts, 2013). EMT is a natural language intervention where a communication partner arranges the environment to encourage communication, using modeling, expansion, and reinforcement to facilitate a child’s language development. High SES caregivers were significantly more likely to believe that children learn to talk at different ages and that children who grow up hearing many languages learn to talk at the same time as children who only hear one language. Therefore, lower
SES caregivers could benefit from education and resources on the normal variability of language development and language milestones.

All caregivers believed that reading stories to children helps them learn more words and talk more. As such, caregivers could benefit from implementing Dialogic Reading into their story time routine. Dialogic Reading differs from traditional book reading by promoting interactive conversations between the reader and child and has been shown to significantly improve children’s receptive and expressive language (Simsek & Erdogan, 2015). Surprisingly, the majority of caregivers did not believe that talking to children using “baby-talk” helps them learn language. Interestingly though, Ramirez et al. (2023) showed that even though mothers do not believe “baby-talk” (referred to as Infant Directed Speech) was of high importance, they severely underestimated their actual use of “baby-talk.” Most mothers did adjust their speech when talking to their child regardless of their reported beliefs, revealing a misalignment between caregiver beliefs and actions. The majority of caregivers believed children learn language by talking to adults and that it is important to start speech therapy for a child with a speech delay as early as possible. Therefore, although caregivers may not believe in or be aware of their use of “baby-talk”, they do believe that talking to adults can enhance their child’s language development. Further, their support of early language intervention indicates caregivers are likely to support interventions that improve their child’s language skills early on.

4.4. Household Dynamics

Although the most frequent conversational partner for the majority of children is their mother, we wanted to investigate a child’s frequent social contacts to better understand who else they are often interacting with. Beyond mothers, caregivers stated children also interact often with a sibling, grandparent, father, uncle/aunt, friend, or teacher. The majority of Not Black, high SES,
and low SES caregivers identified teachers as a person their child frequently interacts with, while the majority of Black caregivers identified grandparents as a person their child frequently interacts with. Not Black caregivers were significantly more likely to identify another caregiver, friend, and teacher as people their child frequently interacts with. High SES caregivers were significantly more likely to identify another caregiver as a person their child frequently interacts with. These results support previous findings by Sperry, Sperry, and Miller (2019) that children’s language environments are diverse and language input received by a child does not just come from primary caregivers/mothers. Accounting for other important sources of language input is responsive to socio-cultural differences in family structure, which in turn may promote caregiver buy-in for early language interventions.

4.5. Conversational Contexts

The context in which caregiver-child language interactions occur most frequently also varies across households. The top three reported contexts for caregiver-child language interactions were playtime, morning routines, and night routines. The majority of Black and high SES caregiver-child interactions occur during playtime, while the majority of Not Black caregiver-child interactions occur during night routines, and the majority of low SES caregiver-child interactions occur during morning routines. There could be larger contextual differences driving why parents talk to their children more during different parts of the day. For example, low SES caregivers may work later shifts that provide them with more time in the morning to converse with their child. It is important to consider the contexts in which caregivers talk most to their child when embedding language interventions into a caregiver-child relationship. Building on when caregiver-child language interactions already take place may result in greater caregiver buy-in and higher efficacy of intervention efforts.
4.6. Challenges and Support Systems related to Child Language Development

In addition to what beliefs caregivers hold about language development and what a child’s language environment looks like, we wanted to investigate what caregivers feel is their biggest challenge to supporting their child’s language development. Not Black and high SES caregivers indicated their biggest challenge is finding time to support their child’s language development. Black caregivers indicated their biggest challenge is that their child prefers watching TV/videos. Low SES caregivers indicated their biggest challenge is the expense of books and educational resources. Black caregivers were significantly more likely than Not Black caregivers to indicate their own language abilities pose a challenge, while Not Black caregivers were significantly more likely than Black caregivers to indicate time as a challenge. Based on these results, interventions that aim to modify caregiver input may get higher caregiver buy-in among Black caregivers, whereas interventions that require less time may be more likely to get caregiver buy-in among Not Black caregivers. Interestingly, low SES caregivers did not perceive their own language abilities to be a challenge in their ability to support their child’s language development. In fact, caregiver’s own language abilities was the lowest rated challenge experienced by low SES caregivers. A wealth of interventions aimed at improving low SES children’s language skills seek to modify caregiver language input, yet our results indicate this may be the reason for high attrition rates as low SES caregivers do not perceive this to be problematic. Instead, language interventions aimed at providing more information and more affordable resources may receive more buy-in and subsequently have greater efficacy.

4.7. Confidence & Resources

We also investigated caregiver confidence levels to supporting their child’s language development. Nearly all participants reported feeling either very confident or confident in
supporting their child’s language development. Despite some caregivers reporting their own language abilities as their biggest challenge to supporting their child’s language development, it appears that this effect may be minimal given they generally feel very confident in being able to support their child. While it is positive that caregivers are confident in their ability to support their child’s language development, it may be beneficial to educate parents about potential misconceptions about language development. For example, as previously mentioned, Black and low SES caregivers were less likely to believe that children language better from talking to others compared to watching TV. Building on caregiver confidence, while simultaneously providing them with research-based evidence of approaches that are most likely to promote children’s language development, may lead to gains in children’s language development.

To examine who caregivers rely upon to learn about ways to support their children’s language development, we asked them to identify common sources of information from which they have learned to support their child. Black, Not Black, and high SES caregivers reported they learned how best to support their child on their own, followed by parents/grandparents. These support systems did not significantly differ on the basis of race; however, low SES caregivers were significantly more likely to report both parents/grandparents and teachers as individuals they feel taught them about ways to support their child’s language development. Interestingly, approximately 10% of participants indicated that no one had taught them about how to support their child’s language development and are still looking for more information. Therefore, interventions that educate primary caregivers about ways to support their children’s development may be most effective; however, for low SES caregivers, including parents, grandparents, and teachers in intervention efforts may result in increased caregiver buy-in. Research in the field of child development has largely ignored or underestimated the supportive role of grandparents.
Grandparents can foster intergenerational relationships as caregivers and socialization agents, by facilitating conversations with their own child and grandchild (Shwalb, Hossain & Eisberg, 2019). Therefore, including grandparents in the intervention process may further support primary caregivers, and subsequently lead to gains in children’s language skills.

4.8. Limitations

One limitation of the current study was that we did not explicitly measure caregiver practices, but rather asked them about their practices and beliefs. There can often be a misalignment between caregiver practices and beliefs as Ramirez et al. (2023) found when investigating maternal beliefs about infant-directed speech, revealing that most mothers used infant-directed speech despite reporting that they did not. As such, when interpreting our findings, we must consider the potential for misalignment as further research is still needed to investigate whether the caregiver practices align with the beliefs reported in the current study.

Another limitation was that the current sample was recruited from a larger cohort that had previously participated in a research study providing free language screenings. As a result, these caregivers may be more biased than other caregivers that language matters and hold different beliefs regarding language development. Our sample was also skewed in that older children were more likely to belong to the higher SES group, as such these caregivers may hold different beliefs regarding language development as a function of their child being further in the course of development than caregivers with younger children, who were more often from a lower SES background. Similarly, although there were distinct differences between SES and racial groups (i.e., they were not a consistent 1-to-1 match) and our sample was highly representative of the
demographics of the Deep South, there were more Not Black caregivers that were high SES and more Black caregivers that were low SES.

4.9. Clinical Implications

Many intervention approaches have been developed with the goal of bridging the word gap between high and low SES children. Some involve professionals working with caregivers to modify their language input in the home environment and therefore require caregiver buy-in to be successful. An unresolved issue though is that oftentimes interventions fall short in terms of cultural responsiveness which affects buy-in from culturally and linguistically diverse caregivers. This is further complicated by the fact that most culturally and linguistically diverse children disproportionately live in poverty and are therefore the target of most interventions. The findings from this study can help inform interventions by taking a strengths-based approach that builds on caregiver current beliefs and practices. Although we have discussed some clinical implications of our findings above, we will discuss them more in depth in this section.

Despite some statements by researchers that language development is not a priority among low SES caregivers (Figueroa, 2023), we found that Black and low SES caregivers rate language development as the most important aspect of their child’s development. Given language is of high importance to Black and low SES caregivers, they are likely to support and buy-in to interventions aimed at improving language because language matters to them. Furthermore, the majority of caregivers across both race and SES believed that it is important to start speech therapy for a child with a speech delay as early as possible for it to work better, supporting their participation and buy-in to early language intervention efforts. All caregivers believed that reading stories to children helps them learn more words and talk more, thus Dialogic Reading would be a great intervention to promote to enhance language learning during story time. Black caregivers believed
adding more words or correcting a child’s speech helps them learn more words, they would likely participate in interventions such as Enhanced Milieu Teaching, where a communication partner expands and recasts a child’s utterance in a natural conversational environment.

Additionally, it is important to consider contexts like playtime, night, and morning routines which we found were times parents talked to their children the most. This is essential for the purposes of embedding language interventions into when caregivers already spend the most time with their child in order to facilitate participation in an intervention approach. Although 93% of caregivers reported feeling either very confident or confident in supporting their child’s language development, they did acknowledge experiencing various barriers. For Not Black and high SES caregivers their biggest challenge was finding time. These caregivers could benefit the most from interventions that are embedded into their daily routines so that they can support their child without needing to set time aside from other responsibilities. For Black caregivers their biggest challenge was that their child prefers watching TV/videos. They could benefit from instruction on using screen time as a means for supporting their child’s language by selecting high quality, educational content and practicing co-viewing. For low SES caregivers their biggest challenge was the expense of books and educational resources. They could benefit from interventions that supplement educational resources or income. As demonstrated by Troller-Renfree et al. (2021), interventions that supplement low SES caregivers’ income by providing monthly cash gifts result in positive changes to infant brain activity which possibly influences future cognitive development. Similar intervention efforts would therefore likely benefit the language development of low SES children.

Finally, interventions should consider the broader context in which children experience language input. Over 60% of caregivers indicated that their child frequently interacts with another caregiver, grandparent, uncle/aunt, sibling, friend, and teacher. This emphasizes the need to
consider the role of other individuals, especially the highly reported others such as grandparents and teachers, in early language interventions. This is especially true for Black and low SES caregivers who were more likely to indicate that they are not sure how to best support their child and wish they had more information. By educating not only primary caregivers, but their surrounding support systems as well, interventions may experience lower rates of attrition and higher rates of efficacy. It is important to note that these educational resources should be presented in an affordable and digestible way, coming from trusted sources like teachers, or by being passed down through generational knowledge by grandparents and parents. Interventions that take our findings into consideration and capitalize on a families’ environment, practices, and beliefs would receive higher levels of caregiver buy-in, and thus be most effective.
Appendix A. Institutional Review Board Approval

TO: Julie Schneider  
LSUAM | Col of HSS | Communication Sciences and  
Disorders | CC00127  
FROM: Alex Cohen  
Chairman, Institutional Review Board  
DATE: 22-Nov-2023  
RE: IRBAM-23-0877  
TITLE: Measuring caregiver beliefs about child development  
SUBMISSION TYPE: Initial Application  
Review Type: Exempt  
Risk Factor: Minimal  
Review Date: 22-Nov-2023  
Status: Approved  
Approval Date: 22-Nov-2023  
Approval Expiration Date: 21-Nov-2026  
Exempt Category: 2a  
Requesting Waiver of Informed Consent: Yes  
Re-review frequency: Three Years  
Number of subjects approved: 100  
LSU Proposal Number:  
By: Alex Cohen, Chairman  

Continuing approval is CONDITIONAL on:  
1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*  
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.  
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.  
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.  
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.  
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.  
8. SPECIAL NOTE: When emailing more than one recipient, make sure you use bcc. Approvals will automatically be closed by the IRB on the expiration date unless the PI requests a continuation.  

* All investigators and support staff have access to copies of the Belmont Report, LSU’s Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/research  

Louisiana State University  
131 David Boyd Hall  
Baton Rouge, LA 70803  
O 225-578-5833  
F 225-578-5983  
http://www.lsu.edu/research
Appendix B. Survey

Start of Block: Introduction

**Purpose:** The purpose of this survey is to understand caregiver beliefs and practices about their child's development.

**Procedures:** If you choose to participate, you will be asked to answer a brief questionnaire about yourself and your child. You will not be asked any information about your identity, and we ask that you please not provide any information that would tell us who you are (e.g. names, addresses, phone numbers, etc.).

**Duration:** This will take about 5-7 minutes.

**Risks:** The only study risk is the inadvertent release of sensitive information; however, every effort will be made to maintain the confidentiality of your study records. There are no other risks associated with this research.

**Benefits:** There are no direct benefits from participation.

**Alternatives:** There are no known alternatives available to you other than not taking part in this study.

**Inclusion/Exclusion Criteria:** Individuals must be a current primary caregiver of a child/children who are under the age of 18. Caregivers must be over the age of 18 years themselves.

**Costs and Compensation:** You will be compensated with $15 Gift Card of your choosing for completing the survey.

**Participation:** Taking part or not in this research study is your decision. You can decide to participate and then change your mind at any point. Your information will be handled as confidentially as possible. No personal or identifying information will be collected.

**Contact Information:** If you have any questions about the current study, the Principal Investigator, Dr. Julie Schneider is available M-F from 8:00 AM to 4:00 PM at juschnei@lsu.edu or 225-578-0023. The other investigator involved in this study is Maria Maldonado, mmald14@lsu.edu

Q1 **CONSENT TO PARTICIPATE IN THE RESEARCH STUDY:** “The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. For injury or illness, call your physician, or the Student Health Center if you are an LSU student. If I have questions about subject’s rights or other concerns, I can contact Alex Cohen, Chairman, LSU Institutional Review Board, (225) 578-8692, irb@lsu.edu, or www.lsu.edu/research. I agree to participate in the study described
above and acknowledge the researcher’s obligation to provide me with a copy of this consent form if signed by me.”

☐ I agree to participate (1)

☐ I do not agree to participate (2)

Q2 I confirm that I am a primary caregiver of a child/children under the age of 18.

☐ Yes (2)

☐ No (3)

Q3 I confirm that I am over the age of 18 years old.

☐ Yes (1)

☐ No (2)

End of Block: Introduction

Start of Block: Demographics

*  

Q4 What is your age? (must enter as a number, not text)

________________________________________________________________

*  

Q5 What is your zip code?

________________________________________________________________
Q6 What is your marital status?
- Married (1)
- Widowed (2)
- Divorced (3)
- In a domestic partnership (4)
- Single (5)

Q7 What is the highest level of education you have completed?
- Less than high school (1)
- High school diploma or equivalent (2)
- Some college, certificate program, or associate degree (3)
- Bachelor's degree (4)
- Master's degree (5)
- Doctorate or professional degree (6)
Q8 What is your current employment status? (Please do not provide any identifying information)

- Employed full time (1)
- Employed part time (2)
- Unemployed looking for work (3)
- Unemployed not looking for work (4)
- Retired (5)
- Student (6)
- Homemaker (7)
- Other, please specify: (8) ________________________________

Q9 What is your approximate annual household income?

- Less than $10,000 (1)
- $10,000-$24,999 (2)
- $25,000-$49,999 (3)
- $50,000-$74,999 (4)
- $75,000-$99,999 (5)
- $100,000-$149,999 (6)
- $150,000 or more (7)
Q10 What ethnic or racial group(s) do you identify with? (Please select all that apply and do not provide any identifying information)

☐ White (1)

☐ Black or African American (2)

☐ American Indian or Alaska Native (3)

☐ Asian (4)

☐ Native Hawaiian or Pacific Islander (5)

☐ Other, please specify: (6) __________________________________________________

Page Break
Q11 What language/languages are spoken in your home? (Please select all that apply and do not provide any identifying information)

☐ English (1)

☐ Spanish (2)

☐ French (3)

☐ Arabic (4)

☐ Mandarin (5)

☐ Other(s), please specify: (6)

__________________________________________________
Q12 Who are other people your child(ren) frequently interacts with? (Please select all that apply and do not provide any identifying information)

☐ Other primary caregiver (co-parent, step-parent, your spouse/partner, etc.) (10)
☐ Grandparent(s) (1)
☐ Uncle(s)/aunt(s) (2)
☐ Sibling(s) (3)
☐ Friend(s) (8)
☐ Teachers (4)
☐ Babysitter (5)
☐ None of the Above (9)
☐ Other, please specify: (6) __________________________________________________

* Q13 How many children are you the primary caregiver for? (must enter as a number, not text) __________________________________________________
Q14

For the following questions we would like you to focus on ONE of your children. They must be 12 years of younger. Please answer the below questions for just this child.

Q15 How are you related to the child in your care? (Please do not provide any identifying information)

- Biological parent (1)
- Adoptive parent (2)
- Step parent (3)
- Legal guardian (4)
- Grandparent (6)
- Other, please specify: (5) __________________________________________________

Q16 We have some questions about your child. Please tell us their age, gender, and if they have any history of language/developmental delay (e.g. autism, dyslexia). Please do not provide any
### End of Block: Demographics

### Start of Block: Language development compared to other areas of child development

Q17 When you think about your child’s overall development, which areas are most important to you? Please rank the following areas from MOST important to LEAST important. (Click and drag each answer into order of importance, with the most important at the top and the least important at the bottom)

1. Walking and running
2. Thinking and problem solving
3. Making friends and managing emotions
4. Speaking and listening
5. Reading and writing
6. Being aware of cultural backgrounds and diversity
7. Playing, using imagination, being creative
8. Dressing, feeding, using the bathroom

---

Display This Question:

*If If We have some questions about your child. Please tell us their age, gender, and if they have any h... Text Response Is Greater Than or Equal to 6*
Q18 When you think about the classes your child takes in school, which classes are most important to you? Please rank the following classes from MOST important to LEAST important. (Click and drag each answer into order of importance, with the most important at the top and the least important at the bottom)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Math</td>
</tr>
<tr>
<td>2</td>
<td>Science</td>
</tr>
<tr>
<td>3</td>
<td>Language Arts (Reading and Writing)</td>
</tr>
<tr>
<td>4</td>
<td>Social Studies (History and Geography)</td>
</tr>
<tr>
<td>5</td>
<td>Arts (Visual Arts, Music)</td>
</tr>
<tr>
<td>6</td>
<td>Physical Education</td>
</tr>
<tr>
<td>7</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>8</td>
<td>Computer Science</td>
</tr>
</tbody>
</table>

End of Block: Language development compared to other areas of child development

Start of Block: Knowledge, beliefs, and practices
Q19 Below are some statements about a child’s language development. Please tell us whether you agree or disagree with each statement:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree (1)</th>
<th>Disagree (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children learn language by talking to adults. (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All children learn to talk at the same age. (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading stories to children helps them learn more words and talk more. (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children between 1-1.5 years know about 20-50 words. (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children who grow up hearing many languages learn to talk later. (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking to children using “baby-talk” helps them learn language. (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important to start speech therapy for a child with a speech delay as early as possible for it to work better. (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children learn language more from watching TV than from interacting with people. (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning to read and write is completely separate from learning to talk. (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding more words or correcting a child’s speech helps them learn more words. (10)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q20 I talk to my child the most during _________.

- Playtime (1)
- Mealtime (2)
- Bedtime (3)
- Car rides (4)
- Storytime (5)
- Watching TV together (6)
- Morning routine (7)
- Night routine (8)
- Other, please specify: (9) ____________________________________

Q21 What do you and your child talk about the most?

- Family stories and personal experiences (1)
- My child's friends and social experiences (2)
- My child's feelings and emotions (3)
- My child's hobbies and interests (4)
- My child's dreams and goals (5)
- Current events and news (6)
- Books were reading and their characters (7)
- Other, please specify: (8) ____________________________________
Q22 Who do you think your child talks to the most?

- Mother (3)
- Father (2)
- Sibling (4)
- Uncle/aunt (5)
- Grandparent (6)
- Teacher (1)
- Friend (8)
- Other, please specify: (7) ________________________________

Q23 How often do you introduce new words to your child?

- Daily (1)
- Several times a week (2)
- Once a week (3)
- Rarely (4)
- Never (5)
Q24 How often do you add to your child’s statements? (e.g., your child says, “dog walked”, you add “yes, the dog walked to his toy”)

- Daily (1)
- Several times a week (2)
- Once a week (3)
- Rarely (4)
- Never (5)

Q25 How do you react when your child makes a mistake while speaking?

- Correct and explain (e.g., your child calls a cat a dog, so you correct “that’s a dog” and explain “cats are smaller and say meow, dogs are bigger and say woof”) (1)
- Correct without explaining (e.g., your child calls a cat a dog so you correct “that’s a dog”) (2)
- Do not correct (3)
Q26 Who taught you how to support your child's language development?

☐ My parents/grandparents (1)

☐ My child's teacher (3)

☐ My child's doctor (4)

☐ Other parents and friends (5)

☐ I learned it myself (6)

☐ No one, I am still looking for information (7)

Q27 Who has taught your child the most about talking?

☐ Mother (1)

☐ Father (2)

☐ Other family member (3)

☐ Teacher (4)

☐ Other, please specify: (5) ___________________________________________

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Q28 Who has taught your child the most about reading?

- Mother (1)
- Father (2)
- Other family member (3)
- Teacher (4)
- Other, please specify: (5) ________________________________

Q29 Who has taught your child the most about math?

- Mother (1)
- Father (2)
- Other family member (3)
- Teacher (4)
- Other, please specify: (5) ________________________________

Q30 How confident do you feel in your ability to support your child’s talking?

- Very confident (1)
- Confident (2)
- Somewhat confident (3)
- Not confident (4)
Q31 How confident do you feel in your ability to support your child’s reading?

- Very confident (1)
- Confident (2)
- Somewhat confident (3)
- Not confident (4)

End of Block: Knowledge, beliefs, and practices

Start of Block: Barriers

Q32 Parenting can be hard. Do you experience any of the below challenges? (Select all that apply)

- “It is difficult to find time to support my child’s language development” (1)
- “Books and educational resources are expensive, I wish I had more affordable options” (2)
- “I worry that my limited vocabulary might affect my child’s language growth” (3)
- “Getting to the local library or school can be difficult” (4)
- “I am not always sure how to best support my child’s language development, I wish I had more information on this” (5)
- “Most of the time my child prefers to watch TV or videos than play with me” (6)
- Other, please specify: ________________________________ (8)

End of Block: Barriers

Start of Block: Final
Q33 Is there anything else you would like to share? Please do not provide any identifying information.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

End of Block: Final
Bibliography


Vita

Maria Maldonado was born in Guatemala City, Guatemala and grew up living all around the world in places like Cairo, Egypt, Mexico City, Mexico, and Vienna, Virginia. After graduating from Portsmouth Abbey School, she attended the University of Virginia and received her undergraduate degree in Communication Sciences and Disorders in May 2022. Maria was then accepted to Louisiana State University’s graduate program for Communication Sciences and Disorders. During her time at LSU, Maria has worked in Dr. Julie Schneider’s Language, Environment and NeuroDevelopment (LEND) Lab. After graduating from LSU, Maria plans to complete her clinical fellowship and become a licensed speech-language pathologist.