

THE ROLE OF THE PERSONAL AND CONTEXTUAL FACTORS ON EMERGENT  
LITERACY SKILLS

by

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## **ABSTRACT**

### **THE ROLE OF THE PERSONAL AND CONTEXTUAL FACTORS ON EMERGENT LITERACY SKILLS**

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Academic readiness skills for preschool aged children have recently become a focus for researchers and professionals. In particular, researchers have sought to better understand and identify the factors associated with academic performance for children who live in poverty. Researchers have identified broad constructs for the personal variable of social competence along with the contextual variables of the home environment that play a role in the acquisition of emergent literacy skills. To better understand the relationship between these variables and emergent literacy this study included 121 preschool aged children attending a Head Start program in the Midwest. Hierarchical regression analyses were utilized to better understand how these individual and contextual factors, both collectively and independently, affect emergent literacy. Specifically, the effects of social competence and home environment on early literacy skills of vocabulary skills, alphabet knowledge, and sound awareness were analyzed separately. Results indicated positive social competence played a significant role in predicting vocabulary skills and alphabet knowledge. No association was found between the home environment measures and young, at-risk children's early literacy development.

The results of the study serve to broaden the research for social competence on emergent literacy skills. Implications for school psychologists and future areas of growth for the field are presented and discussed.

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## CHAPTER ONE

### Introduction

Approximately half of the children in the United States have struggled to appropriately transition to kindergarten. Specifically, children from low-income backgrounds are disproportionately represented among struggling learners as early as the preschool year compared to children from higher income brackets (Hindman, Skibbe, Miller, & Zimmerman, 2010). It is important for researchers and educators alike to better understand the prominent factors influencing or hindering a child's early growth and development.

Researchers have indicated children in poverty are at an increased likelihood to be faced with risk factors that negatively affect the academic skills of a child (Bulotsky-Shearer, Dominguez, & Bell, 2012; Elias & Hayes, 2008; Hindman & Morrison, 2011). Although there is a strong link between risk and poor development, many of these at-risk youth continue to thrive (Maier, Vitiello, & Greenfield, 2012). This success can be attributed to the resilience factors within a child's life. Some researchers have suggested that multiple dimensions within the various bio-ecological levels of a child's world, including the individual and family, can positively influence development for children in poverty. Targeting these potentially adaptable aspects of a child's life can assist with promoting children's academic competence and future success (Rhoades, Warren, Domitrovich, & Greenberg, 2005). Social competence (Blair, Denham, Kachanoff, & Whipple, 2004; Denham, 2006a; Elias & Hayes, 2008) and the home environment (Evans, Shaw, & Bell, 2000; Hood, Conlon, & Andrews, 2008; Roberts, Jurgens, &

Burchinal, 2005; Sonnenschein & Munsterman, 2002) are two broad variables that researchers have begun to shed light for the influence on outcomes. Additional information is needed to better understand how these risk and resiliency variables work together and the level of each influence on academic outcomes (Hindman, et al., 2010).

### **Importance of the Preschool Year within Development**

Researchers have demonstrated the trajectory of achievement patterns for children are developed early and remain stable within the first few years of school (McWayne, Fantuzzo, & McDermott, 2004). Specifically, the preschool year is the first time a child encounters the academic setting, which can impact a positive or hindering trajectory (Herndon, Bailey, Shewark, Denham, & Bassett, 2013). The identified outcomes by these researchers demonstrate the importance of an improved understanding for the critical time period of learning and academic growth during the preschool years. Children's development of emergent literacy skills within the preschool year is associated with positive outcomes for their later language and literacy skill development (Maier, Vitiello, & Greenfield, 2012). Specifically, deficits at the beginning of the kindergarten year are often maintained and can be intensified through a child's academic career (Gettinger & Stoiber, 2007). Early intervention during the preschool year can help to enhance specific emergent literacy skills for successful literacy growth and reduce the current academic gap (Hindson et al., 2005).

Early literacy skills, such as phonological and linguistic awareness, letter recognition, and print awareness, set a strong foundation for later literacy learning. Additionally, past researchers have demonstrated these emergent skills consistently

strengthen a child's success in reading ability (McWayne et al., 2004). It is important to ensure these foundational skills are competent, as approximately a fifth of sixth grade students are failing to read at sufficient levels, measured by the acceptable reading standards set in the National Curriculum (Drouin, 2009). Additionally, a study completed by Hindman et al. (2010) concluded children from low SES backgrounds start preschool with pre-academic skills approximately one standard deviation below the average.

### **Role of Low Socio-Economic Status**

Gaining a better understanding for the risk and resilience factors impacting children in poverty is vital due to the large amount of children affected. The National Center for Children in Poverty (2002) reported 40% of children under the age of six live in households in which the income is 200% below the poverty criteria. Multiple studies have demonstrated children from socioeconomically disadvantaged backgrounds are at an increased risk for educational difficulties (Dominguez, Vitiello, Maier, & Greenfield, 2010; Hindman & Morrison, 2011; Stanton-Chapman, Chapman, Kaiser, & Hancock, 2004). Due to the detrimental effects of poverty, researchers have increased attention to better understand the relationship of this factor on development and achievement. Children exposed to risk factors, such as low socioeconomic status have an increased risk of academic and behavioral struggles as compared to their peers who are not exposed to these same factors (Reardon, 2003). Nationwide reading scores demonstrated fourth grade children in urban schools performed lower than children from a higher SES status. Specifically, 14% of urban children read at a proficient level, as compared to 41% of children in a higher SES bracket (Elias & Hayes, 2008). Additionally, the factor of

poverty has demonstrated associations with later outcomes especially within the first five years of a child's life (Maier et al., 2012). As Head Start was developed to assist low SES families, the majority of children attending Head Start fall within this criterion, which results in increased exposure to the risk factor for poverty.

Although a link is present between risk factors, such as poverty and later academic outcomes, many of these at-risk youth are still able to prevail and succeed. These children demonstrate resiliency factors that allow them to achieve and overcome adversity (Maier et al., 2012). Dalton et al. (2007) defined protective features as the "strengths or resources associated with positive individual outcomes" (p.245). Additionally, these factors are found within the varying levels of the individual, family, and community networks which assist a person to function in society (Elias & Hayes, 2008).

As a means to close the achievement gap, a shift in focus has turned to better identifying the strengths for the within group variables that can positively impact resiliency factors (Hindman et al., 2010). Questions remain regarding the impact of the contextual and personal factors on outcomes with this shift in focus. Specifically, few studies have explored the aspects impacting early literacy skills during the preschool year.

### **Role of Social Competence**

One of the aspects identified to impact literacy outcomes for children is the understudied personal factor of social competence. Children within the preschool

classroom demonstrate differing abilities, strengths, and competencies (Maier et al., 2012). Social competence has been defined as the child's ability to successfully interact and function within their environments (Stoiber & Kratochwill, 2002). These skills include positive behaviors such as helping, sharing, and taking turns along with the ability to control frustrations (Bierman et al., 2008). These types of behaviors are an important and unique factor that can assist children in achieving within the school setting through intellectual functioning (Elias & Hayes, 2008). Social competence has gained interest as past studies have demonstrated this to be a core factor for a child's ability to access instruction and ultimately contribute to academic achievement (Konold & Pianta, 2005).

On the other hand, behavior problems or a display of challenging behaviors can have negative effects on a child's functioning. Children exhibiting challenging behaviors within the preschool year have demonstrated stable trajectories of continued problems in the school classroom resulting in disruptions for participation in learning activities and ultimately development of academic skills (Fantuzzo, Bulotsky-Shearer, Fusco & McWayne, 2005). Researchers have revealed children that attend school in low-income areas display poor social skills and deficits in social-emotional readiness. Specifically, 40% demonstrated delays in social competence while 20% exhibited high rates of disruptive behavior (Bierman et al., 2008).

### **Role of Home Environment**

Another aspect identified to impact a child's early literacy outcomes is the home environment. Parents are the child's first and most consistent teacher throughout their

lives. A study by Foster, Lambert, Abbott-Shim, McCarty, and Franze (2005) concluded the home literacy activities played a mediating role between low SES and emergent literacy skills. Previous researchers have demonstrated literacy activities within the home setting influence emergent literacy skills (Evans et al., 2000). Children from a low SES background are exposed to home environments with less-rich language experiences (Maier, Vitiello, & Greenfield, 2012). A study by Burgess et al. (2002) demonstrated that the parental demographics impacted alphabet knowledge while the parent-child shared book reading played a larger role for multiple outcomes: oral language, letter-sound knowledge, phonological sensitivity, and word decoding.

Researchers have demonstrated children not only learn from the types of literacy activities in the home, but also the types of interactions that occur during these enriching experiences. These interactions include the instructional behavior the parent participates in during these activities (Cline & Edwards, 2013). Specifically, dialogic reading is an evidence based approach for children to learn emergent literacy skills. This technique focuses on allowing the child to be an active participant during interactions while the parent is available to provide feedback and continue to facilitate learning (Blom-Hoffman, O'Neil-Pirozzi, Cutting, & Bissinger, 2006). Although this practice has been studied comprehensively during book reading, this strategy can also be utilized during additional activities within the home setting (de Jong & Leseman, 2001).

Past researchers have demonstrated the importance of including literacy enriching activities and parental instructional strategies as factors that impact the development of emergent literacy skills (Drouin, 2009). No known empirical study has included the

individual factor of positive and challenging skills within social competence, along with the quality and quantity of aspects within the home environment, to better understand how the child and his/her environment impact emergent literacy development.

Although literacy outcomes have been a focus for recent researchers, a focus on emergent literacy skills for preschools has not been studied extensively. Additionally, researchers have demonstrated low academic abilities and achievement for low SES students, but researchers need to better explore these large constructs to more clearly understand the precise factors playing a role. Specifically, the complex associations among the personal and contextual factors on emerging literacy skills are rarely examined. The goal of this study is to better understand the factors that promote resilience for preschool children as demonstrated by the attainment of early literacy skills. An investigation that incorporates a combination of these variables will assist researchers in better understanding the contributions of each factor individually and collectively.

This study draws information about high-risk preschool children from a larger, federally funded project, the Exemplary Model of Early Reading Growth and Excellence (EMERGE) (Gettinger & Stoiber, 2007, 2012; Stoiber & Gettinger, 2011, 2012). Based on theories of past research and the current gaps in knowledge, this study will examine the combination of the risk and resilience factors on emergent literacy skills of preschool children. The first purpose of the study is to examine the effects of the personal and contextual factors on children's emergent literacy. Specifically, the study examines the

effect of the relationship for personal and contextual factors on vocabulary, alphabet knowledge, and sound awareness separately.

## **CHAPTER TWO**

### **Theoretical Framework**

Bronfenbrenner's *Bioecological Theory of Human Development* provides a holistic view for the development of a child (Bronfenbrenner; 2005). It is based on the understanding that child development is an interactive process between the characteristics of the individual child and his/her environment over time. This perspective supports the notion that the child interacts within the context as opposed to the child and context as separate entities (Trudge, Morova, Hatfield, & Karnik, 2009). From this model, Bronfenbrenner developed the Process-Person-Context-Time model (PPCT), which is the theoretical basis for this research study.

One of the factors within the model, process, is the basis for the bioecological model presented by Bronfenbrenner and plays a critical role in the development of children. The importance of this factor is evident as the processes in a person's life are determined to be the "engines of development." These processes are the interactions a child has on a daily basis between themselves and the environment. Additionally, these interactions take place over time (Bronfenbrenner & Morris, 2006). Through these interactions, children develop an understanding of their environment, which can influence their capacity to learn. Outcomes from the concept of process can result in either competence or dysfunction in a child's development (Trudge et al., 2009).

Bronfenbrenner and Morris (2006) defined the concept of dysfunction as the continued struggles for the child in his/her environment. On the other hand, competence is the continued advancement of skills (intellectual, physical, socioemotional, or combination).

The domain of person is related to the biological, cognitive, emotional, and behavioral characteristics of the individual. These factors are determined to not only be effected by, but also influence the proximal processes of the environment. The characteristics of the child can impact the positive or negative interactions with other individuals (Trudge et al., 2009). Bronfenbrenner and Morris (2006) explained children need two characteristics in order to develop competently in life. The first is resources which include the knowledge and skills of the individual him/herself and the second is the demand that encourages interactions with others. The positive and challenging social competence factors of a child are included in the current study to better understand the person factor.

The context factor within Bronfenbrenner's theory involves four interrelated environments. The microsystem is viewed as a proximal environment as it is the immediate environment a child is involved in. The other environments (mesosystem, exosystem, and macrosystem) are labeled distal environments as development does not necessarily occur within these environments, but is indirectly influenced by them. The environments are viewed as bidirectional as each level influences another while also being influenced (Trudge et al., 2009). Although some of these factors are viewed as distal to the child, a strong and powerful influence, such as poverty, can impact the

child's development and achievement outcomes (Foster et al., 2005). The home environment will serve as the contextual factor for the present study.

The time factor is the final aspect of the model. The essence of development is that it takes place for a period of time (Trudge et al., 2009). Development may occur during an interaction of proximal process (micro-time), over days or weeks within multiple, consistent interactions (meso-time), or over the life course or generations (macro-time) (Bronfenbrenner & Morris, 2006).

### **Review of Literature**

Based on Bronfenbrenner's bioecological model, this study will incorporate the contextual and personal variables to better understand how these important factors can impact a child's ability to develop emergent literacy skills. As the personal variable is the factor within the child's immediate environment, the inclusion of social competence will help to better understand the direct influence of the child, him/herself. Additionally, the contextual factor of the home environment can improve understanding for the indirect influences on a child's learning. The following areas examine past research for these two factors and their impact on development for emergent literacy skills within preschool aged children.

#### **Social Competence**

Recently, an increase in attention regarding children's social and emotional readiness has occurred. Social competence as a construct, while described in different ways, can be defined as the "effectiveness in interactions, the result of organized

behaviors that meet short and long-term developmental needs” (Denham et al., 2003). Social competence can also be defined as the construct utilized for the within child factors playing a role in literacy outcomes. This construct is the “child’s abilities to have positive relationships with peers, family, and teachers” (Brophy-Herb, Lee, Nievar, Stollak, 134, 2007). Specifically, socially competent individuals demonstrate key emotional, cognitive and behavioral skills across domains such as home, school, and community (Elias & Hayes, 2008).

Preschool typically is the setting in which social competence is initially developed through play with peers (McWayne et al., 2004). For a preschool-aged individual to be successful during these interactions, participation in positive classroom behavior along with developing emotional competence and self-regulation, aspects of social competence, are vital (Denham et al., 2003). Specifically, Stoiber (2004; 2014) identified three key components of social competence: emotional regulation and self control, social awareness and cooperation, and social decision making and life skills. A child’s ability to display these characteristics positively can play a role of resiliency or of promoting the child’s disposition toward learning. On the other hand, if social competence in the preschool year is not developmentally appropriate and successful, a child is at an increased current and future risk for psychopathology and academic struggles (Denham, 2006b).

The first aspect to be further explored within social competence is self-regulation or emotional competence. While some researchers separate emotional competence from social competence, others have demonstrated interplay between the two (Diamond &

Aspinwall, 2003). Emotional competence can be defined as “how children can respond emotionally, yet simultaneously and strategically apply their knowledge about emotions and their expression to relationships with others, so that they can negotiate interpersonal exchanges and regulate their emotional experiences” (Denham et al., 2003, p. 238). It constitutes both a child’s level of awareness for one’s own emotions along with the ability to appropriately express and regulate these emotions (Denham et al., 2003; Stoiber & Kratochwill, 2002). Self-regulation plays a fundamental role in a child’s ability to regulate emotional expression (Diamond & Aspinwall, 2003). While these skills develop and are learned throughout a person’s life span, children within the preschool years possess the ability to utilize components that set the stage for successful future development (Denham et al., 2003).

The child’s ability to appropriately express emotions on an interaction-to-interaction basis will aid in relationship development over time. Positive attributes for social competence also require skills such as the ability to communicate well with others, engage with others positively, and build relationships to be successful. Positive expression skills such as positive affect help a preschool child to start and maintain social interactions with others. These skills assist in a child’s ability to be liked and to develop friendships (Denham et al., 2003). These expressions can also assist a child with support from others when displayed appropriately. For these skills to be obtained, students must first attend to self-awareness, self-management, social awareness, and responsible decision making (Dunham, 2004). Positive affect assists children to utilize the cognitive flexibility, which allows for successful decision making (Diamond & Aspinwall, 2003). Collectively, these skills can be organized around “the developmental tasks of positive

engagement and managing emotional arousal within social interaction, while successfully moving into the world of peers” (Dunham, 26, 2004). This occurs because the children that are able to demonstrate positive social competence characteristics more often than negative characteristics are viewed as socially acceptable (Denham et al., 2003).

On the other hand, poor emotional competence or self-regulation has been demonstrated as associated with poor social and academic outcomes for preschool aged children. This display of challenging socially competent behavior hinders the child’s resiliency and compounds additional risk factors. Past researchers have focused on both internalizing and externalizing problem behavior in children. Externalizing or overactive behavior are concepts that incorporate behavior such as aggression, inattention, and opposition. Internalizing or underactive problem behavior, on the other hand, includes social reticence and withdrawn behavior (Bulotsky-Shearer et al., 2012). Negative expression skills, such as anger, hinder social interactions with others as it can serve as a roadblock through outward displays of unacceptable behavior (Dunham, 2004).

Past studies have demonstrated children with poor self-regulation of emotions can also have both present and future academic difficulties (Graziano, Reavis, Keane, & Calkins, 2007). Specifically, studies have demonstrated as many as 10-15% of preschool children exhibit moderate to clinically significant emotional and behavioral difficulties (Fantuzzo et al., 2005). An additional study concluded one in five children experience characteristics of emotional distress while eleven percent of all children experience “significant functional impairment” (Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003). These struggles can impact a child’s ability to be socially and academically

prepared for school. These externalizing behaviors are demonstrated to be one of the largest concerns within the preschool year resulting in later adjustment concerns within the classroom (Konold & Pianta, 2005).

### **Social Competence on Learning**

Learning behaviors are another aspect of social competence that impact academic skills within the classroom. It is vital to understand how these behaviors both develop and change during the school year due to this influence (Dominguez et al., 2010). The preschool years allow for a child to better handle the challenges of a classroom, which can result in developing the academic course for learning success or struggles (Herndon et al., 2013). For example, a study completed by Konold and Pianta (2005) demonstrated high levels of socially competent behavior in preschool was a more robust predictor than cognitive functioning in a child's academic achievement in the first grade. Children's social competence skills and behaviors affected not only individual learning abilities but also classroom dynamics for other children to learn (Duncan et al., 2007).

Researchers have indicated children who contain positive social competence characteristics are not only more successful in developing a positive perspective and adjustment to school demands but also have an increased trajectory for better grades and achievement. These results are true even when cognitive skills and family background have been accounted for (Denham, 2006b). The positive characteristics for appropriate learning behaviors include persistence, motivation, initiation, flexibility, and attentiveness (McWayne et al., 2004). The appropriate use of emotion regulation helps to support learning behaviors through a child's ability to independently focus on and learn

the information provided from the teacher (Graziano et al., 2007) through following directions, waiting, and utilizing personal resources for learning (Herndon et al., 2013). The use of these socially competent skills increases the amount of time children are engaged and participated in academic endeavors. Successful children are able to utilize these skills while also completing additional tasks, sharing materials, concentrating on tasks, and taking turns (Denham, 2006a). These aspects of behavioral regulation such as attention, working memory, and inhibitory control, have predicted emergent literacy skills in both the preschool and elementary years, independent of both cognitive and language ability (Duncan et al., 2007). For example, a study found the level of children's attention in the preschool year predicted reading levels for the same children at 54 months (McClelland et al., 2007).

Maier et al. (2012) evaluated the effect that child-centered factors played on enhanced language ability through five classrooms within south Florida. The psychosocial strengths of the child, as evaluated through the Devereux Early Childhood Assessment Scale, were a significant strength at baseline but did not play a significant role for the potential gains over the year. This study concluded that a child's ability to self-regulate his/her behavior was found to have positive longitudinal results on academic abilities (Maier et al., 2012).

Adding to the literature on self-regulation, Herndon et al. (2013) concluded preschool children who possess the ability to regulate emotions are better adjusted to the Head Start classroom and are better able to handle the change in the learning environment for the kindergarten year. This regulation is key for school learning as it assists children

to utilize appropriate classroom behaviors. Children as young as the preschool age demonstrate the ability to learn and utilize self-regulation skills to support classroom behavior such as problem solving, support seeking, and attention (Herndon et al., 2013).

Relationships with peers and teachers in the classroom are additional factors that are impacted by a child's level of social competence. The child's ability to comply with the teacher and cooperate with peers can assist the child in learning from and with other individuals within the classroom setting (Hindman et al., 2010). These relationships also aid in the development of a positive attitude towards school. The child's ability to enter the preschool year with relationship skills such as self control, cooperation, and compliance can impact academic skills. Children who possessed these skills also demonstrated stronger academic abilities (Hindman et al., 2010) even when previous academic success had been taken into account (Denham et al., 2003).

However, children's ability to successfully regulate emotions may not always be possible due to the demands of the academic setting. These activities include: behavioral inhibition, compliance with rules, and behavior that promotes relationships with peers and teachers. Preschool children who present with negative social competence characteristics of externalizing behavior such as aggression at the beginning of the school year tend to also demonstrate a decreased ability to pay attention and successfully complete tasks. Additionally, a decrease in positive attitude for learning at the end of the year can transpire (Dominguez et al., 2010). This occurrence of negative attitude tends to occur when the child is unable to maintain both self regulation and higher order cognitive skills during a task. The lack of participation for both skills simultaneously can hinder

appropriate follow through and task completion. Additionally, overactive behaviors such as aggression and tantrums impact the child's oppositional behavior for teacher instructed academic demands (Fantuzzo et al., 2005). The lack of this behavioral control can have both present and future academic difficulties due to struggles with completing school related tasks that promote learning (Graziano et al., 2007).

Poor emotion regulation hinders a child's ability to utilize working memory, attention, and planning within the classroom setting. A child who needs to actively regulate emotional actions or reactions focuses a higher level of energy to emotion regulation, which hinders the energy for higher-ordered cognitive demands (Dunham, 2004). When these higher order processes are disrupted, a child has more difficulty attending to and remembering information presented by the teacher. The co-occurrence of academic and behavioral concerns upon entrance to elementary school often results (Graziano et al., 2007) and proceeds through the elementary and middle school grades.

Past studies have demonstrated children with poor classroom behavior often struggle to build and utilize healthy relationship skills needed for academic success. Researchers demonstrate children with behavioral concerns in the school setting are especially prone to struggle to interact with peers and teachers appropriately (Fantuzzo et al., 2005; Bulostsky-Shearer, Dominguez, & Bell, 2012). A study by Raver (2004) identified reasons for children's academic struggles when presented with poor relationship skills and included factors such as: (a) it is difficult to teach disruptive children, (b) these children are less likely to benefit from cooperative learning experiences with peers, and (c) less rewarding experiences with individuals in the school

setting impact the child's interest and motivation for school success. These negative characteristics have been linked with specific deficits for both literacy and language achievement (Bulotsky-Shearer et al., 2012). The behavioral problems identified in the preschool year are often found to be stable throughout the year along, and may increase with additional classroom behavioral concerns (Fantuzzo et al., 2005).

### **The Role of Social Competence on Academic Abilities**

Social competence has been linked to academic abilities during preschool. A study by Fantuzzo et al. (2003) found evidence for socially reticent behavior negatively impacting expressive vocabulary skills, while withdrawn characteristics negatively impacted receptive vocabulary. On the other hand, children who displayed overactive behavior or inattention/hyperactive problems also demonstrated poorer cognitive and speech-language skills at the end of the preschool year. Additionally, a study by Bulotsky-Shearer et al. (2012) concluded both overactive and underactive behaviors reported by the teacher within the classroom setting were linked to lower cognitive abilities at the end of the school year. Other researchers noted that children from the ages of two to nine who consistently demonstrated heightened levels of aggression were more likely to have achievement concerns in third grade (Duncan et al., 2007). Additionally, past studies have demonstrated a lack of attention over and above externalizing problems in preschool predicted later achievement abilities (Duncan et al., 2007). However, preschool aged children with higher behavioral regulation skills demonstrated increased abilities for vocabulary and emergent literacy skills in both the fall and spring even after controlling for age and gender (McClelland et al., 2007).

Socially competent skills such as attention, working memory and inhibitory control in the fall of the preschool year not only predicted emergent literacy skills at the end of the year but also into elementary school (Howes, Calkins, Anastropoulos, Keane, & Shelton, 2003).

Children who grow up in low socioeconomic environments are at an increased risk to enter the academic setting with deficits in social- emotional abilities. Kaiser, Hancock, Cai, Foster, and Hester (2000) found 40% of children in low SES communities demonstrated poor social competence and communication skills while 20% displayed an increased rate of disruptive behaviors. Other studies reported approximately 30% of children in community based programs demonstrate emotional and behavioral needs in the classroom that reach moderate to clinically significant levels (Bulotsky-Shearer et al., 2012). These characteristics hinder a child's ability to adjust to the classroom setting.

### **Role of Gender**

The constant personal variable of gender may also have an important influence on preschool aged children's academic readiness. Researchers have found inconsistent results for the impact of a child's gender on academic abilities. While some studies have concluded boys have higher academic skills, others have concluded the same results for girls. On the other hand, some researchers have found no differences between genders. Specifically, there is question regarding gender differences for young children (Ready, LoGerfo, Burkham & Lee, 2005). Boys have historically demonstrated higher academic abilities than girls, but a shift in recent years has occurred (Matthews, Ponitz, & Morrison, 2009). Positive differences for females have become apparent as grade levels

progress when looking at gender differences from ages kindergarten to 12<sup>th</sup> grade.

Additionally, Ready et al., (2005) concluded females enter kindergarten with stronger academic scores and gain more literacy skills over the year. However, Matthews, Ponitz, and Morrison (2009) concluded that other researchers have shown no gender differences for children in the early school years.

Past researchers have found inconsistent results for the level of influence specific personal and contextual variables have on emergent literacy skills. Hindman et al. (2010) conducted a research study and found that parental factors were no longer significant when child factors were taken into consideration. The study focused on identifying factors that promoted early learning by looking at the degree to which child and family factors played a predictive role in a child's early academic skills. In their study, 945 children who attended Head Start preschool were followed through first grade. The results concluded that children's social skills such as self-control, cooperation, and compliance played a prominent role a child's academic skill level (Hindman et al., 2010).

### **Role of the Home Environment**

Although researchers have demonstrated the influence of personal variables on a child's ability to develop emergent literacy skills, contextual factors, such as the home environment, can also indirectly (and perhaps just as strongly) influence a child's academic competence. Researchers have demonstrated the importance of the home literacy environment on early literacy skills within the domains of vocabulary, letter knowledge, phonemic awareness, and reading skills (Britto & Brooks-Gunn, 2001). Conceptualizations for the home literacy environment have included parental

involvement for literacy-based activities along with parental reading practices in the home setting. Both of these factors are related to emergent literacy skills for Head Start preschool children (Dodici, Draper, & Peterson, 2003). The home is an important factor for emergent literacy skills as it is the setting in which children first encounter the academic related experiences, attitudes, and materials (Roberts et al., 2005). Past researchers have cited the home environment as an influence for both literacy and school achievement with children (Britto, & Brooks-Gunn, 2001).

The home environment can set the building blocks for further growth and development with literacy. DeBaryshe, Binder, and Buell (2000) concluded the home environment allows for the child to encounter many positive literacy experiences that can impact future growth:

(a) become familiar with literacy materials, (b) observe the literacy activities of others, (c) independently explore literate behaviors, (d) engage in joint reading and writing activities with other people and (e) benefit from the teaching strategies that family members use when engaging in joint literacy tasks. (pp. 119-120).

Literacy rich home environments have demonstrated positive outcomes for both emergent literacy skills in the preschool year and later reading abilities. Parents are key components to a child's ability to develop literacy skills. Home environments that provide a rich language environment, including continual learning experiences and verbal conversations, are significantly associated with both language and literacy development. Rush (1999) conducted research focused on the features of positive literacy activities

between the child and caregiver from low income environments. Thirty-nine preschool children from two Head Start preschool classrooms and their families participated in the study. Observations within the home environment through the CIRCLE-2 assessment, along with the SFRS and PPVT-R assessment measures, were used to address the research questions. The results of this study demonstrated the high rates of literacy related activities were positively associated with literacy outcomes. In particular, the activities that demonstrated positive effects on child language abilities included: type of activity, caregiver involvement and vocal response, children's social and engagement behaviors, and involvement in literacy-related activities (Rush, 1999). These verbal interactions between a parent and child contributed to the development of language acquisition.

Participation in other literacy practices in the home setting has also demonstrated positive outcomes for emergent literacy skills. These activities include singing songs, reciting nursery rhymes, telling stories, drawing pictures, having conversations at dinner, and playing games (Skibbe, Justice, Zucker, & McGinty, 2008; Weigel, Martin, & Bennett, 2006). Growth in early literacy skills within the home setting can contribute to specific understanding for letter sounds and vocabulary (Hood et al., 2008).

One literacy activity demonstrated to be a robust predictor is book reading. A meta-analysis focused on literacy and language outcomes for preschool children concluded a positive effect for the frequency of joint shared reading (Bus, van Ijzendoorn, & Pellegrini, 1995). Additionally, a study by Burgess, Hecht, and Lonigan (2002) concluded the frequency of book reading between parents and children influenced

oral language, letter-sound knowledge, phonological sensitivity, and word decoding skills. Another study focused on shared book reading activities between parent and child within the home environment and determined this factor had significant effects on later academic abilities within a Head Start preschool (Bracken & Fischel, 2008). This study's research questions focused on: the relationship between reading behavior within the home and early literacy and language skills, and the role in which family literacy behavior influences a child's ability over and above demographics. Two hundred thirty-three children attending full-day Head Start programs within the New York area participated in the study. The reading interaction between the parent and child through frequency of shared reading, literacy activities, and age when shared book reading began were significantly correlated with multiple emergent literacy results on the RTR, PPVT-III, and story and print concepts (Bracken & Fischel, 2008).

Not only is the amount of exposure to book reading important, but also the frequency of high quality parental instructional interactions. The dialogue about the book is found to be just as important as the actual text reading during shared book reading (Sonnenschein & Munsterman, 2002). This quality of book reading is referred to as dialogic reading and is based within three principles: the parent encourages the child to elaborate on the pictures within the book, the parent provides feedback to allow for expansion on thought and corrective feedback, and the parent adapts sensitivity to the child's developmental level. The child becomes the storyteller of the book as opposed to passively learning through listening (Mol, Bus, de Jong, & Smeets, 2008). The important factors for the discussion of the book include: what is happening in the story, foreshadowing of future events, and relating the book to real world experiences. The

reading activities between parent and child have explained around eight percent of the variance in early reading skills (Hood et al., 2008). Additionally, parental behaviors for adding information, focusing on print concepts, and asking open-ended questions were correlated with language abilities (Roberts et al., 2005).

To better understand the effects of dialogic reading behaviors on emergent literacy skills, Blom-Hoffman et al. (2006) evaluated the effects for parental use of this reading technique on children's vocabulary of the book. The researchers utilized a randomized experimental design to complete the study. Participants included eighteen children with a mean age of forty-eight months along with their caregivers. The parents within the experimental group were taught dialogic reading techniques through a video and were provided handouts outlining the techniques. Video observations were utilized to score the dialogic reading techniques between the parent and child. Results concluded children's oral language skills increased with the use of dialogic reading strategies by the parent (Blom-Hoffman et al., 2006).

Cline and Edwards (2013) also demonstrated instructional quality from the parent positively impacts emergent literacy outcomes for young children. Eighty-one children under the age of three along with their parents participated in this study. The researchers evaluated videotaped book reading interactions between the parent and child. Based on instructional qualities of book reading adapted by DeBaryshe, the interaction was evaluated on questions asked to the child, feedback provided by parent, book-related conversations, and direct reading. Additionally, the emergent literacy outcomes for the children were based on the Bayley Scales of Infant Development- Second Edition. The

results concluded the specific instructional strategies positively impacted child learning (Cline & Edwards, 2013).

As research continues to expand upon the evaluation of dialogic reading skills, a study by Mol et al. (2008) evaluated past studies within a meta-analysis to better understand if this technique plays a significant role in improving emergent literacy skills for children. This meta-analysis included sixteen previous research studies focused on the outcome variables of receptive and expressive vocabulary. The children within these studies ranged from twenty-seven to seventy months in age. The results concluded that the increased dialogue of the book through active participation of the child increased the effects of the reading interactions. Additionally, the researchers identified the quality, just as much as the quantity, of book reading significantly impacted early literacy skills. Interestingly, these effects were the most prominent for younger children ranging from two to three years old, thus demonstrating the vital time frame for preschool children (Mol et al., 2008).

Parents can provide a multitude of literacy enhancing activities in the home setting despite socioeconomic factors. Foster et al. (2005) conducted a research study examining preschool children's home learning environment and its effects on emergent literacy skills. The authors utilized structural equation modeling to address the mediating effect the home learning experiences had between socioeconomic status and children's emergent literacy competence. The study randomly selected 48 classrooms from a possible 190 within the southern area. Approximately 421 Head Start preschool students and 362 parental interviews were conducted. The home learning environment was

comprised of: reading activities with the child, home learning activities, and enriching experiences completed with the child. Their measure of home learning environment was found to play a mediating role in the relationship between SES and emergent literacy (Foster et al., 2005).

These literacy activities within the home setting have been found to increase a child's motivation for reading and learning. Sonnenschein and Munsterman (2002) concluded the opportunities to interact with print materials before entering school increased a child's interest in reading. A study by Bennett, Weigel, and Martin (2002) found children's motivation for reading was influenced by the parent's participation in reading books aloud and visiting the library along with reciting rhymes, telling stories, drawing pictures, and playing games. The associations were still determined to be significant one year later.

### **Emergent Literacy Skills**

To better understand the desired outcomes of the preschool years, it is important to comprehensively understand the concept of emergent literacy skills. The term emergent literacy skills refers to the basic skills that are believed to be relevant for the acquisition of a child's reading ability (Sonnenschein & Munsterman, 2002) including the awareness for printed materials and sensitivity to sounds for oral language. Children who struggle with emergent literacy and literacy skills during their first years in school are at an increased likelihood to struggle with literacy during the proceeding academic years and beyond (Drouin, 2009). Rhyner (2009) has further developed the concept for emergent literacy to encompass the observable behaviors demonstrating the knowledge,

skills, and attitudes that develop in children prior to the conventional ability to read and write.

Shanahan and Lonigan (2010) evaluated the results of a meta-analysis through the *Developing Early Literacy: Report of the National Early Literacy Panel* to better understand which measures are related to later academic achievement. The study concluded six variables were significant predictors: alphabet knowledge (names and sounds of letters), phonological awareness (detect, manipulate, or analyze spoken language), rapid automatized naming of letters (rapidly name letters or digits), rapid automatized naming of objects/colors (rapidly name sequence of repeating pictures of objects and colors), writing/writing name (write letters or own name), and phonological memory (remember spoken information for a short amount of time). Additionally, five other variables were determined to be predictive of at least one later literacy skill: concepts about print, print knowledge, reading readiness, oral language, and visual processing (Shanahan & Lonigan, 2010). This meta-analysis helped identify the impact of specific emergent literacy skills on later literacy skill ability.

The NELP meta-analysis study, along with many others, helped to identify the skills that laid a foundation for future literacy growth and development. Two factors (outside-in and inside-out) (Whitehurst & Lonigan, 2001) along with four areas encompass the main skills within emergent literacy: Sound Awareness, Oral Language, Alphabet Knowledge, and Print Awareness (Gettinger & Stoiber, 2007; 2012). These areas of emergent literacy skills have been strongly correlated with later academic success (Gettinger & Stoiber, 2012). Specifically, additional research has indicated these

four emergent reading skills are associated with reading comprehension and receptive vocabulary both five and eight years later (Tabor, Snow, and Dickinson, 2001)

The terms inside-out and outside-in were concepts developed to explain two sets of skills which advance concurrently and independently and are required for successful reading. Whitehurst and Lonigan (2001) utilized these concepts to describe the emergent and conventional literacy skills that predict academic learning. Inside-out factors are the knowledge and rules related to the translation of written print to sounds and meaning, including alphabet knowledge and sound awareness. On the other hand, the outside-in domain encompasses the understanding for context including oral language and print awareness.

**Alphabet Knowledge.** The child's ability to recognize and recall names of letters falls within the alphabet knowledge domain. It is the understanding and the ability to verbalize that each letter has a name. It also includes the awareness that the uppercase and lowercase forms of a letter are related. This skill has been found to be one of the best predictors of later reading achievement (Lonigan, 2006). Because of this, alphabet knowledge, as an emergent literacy skill, has been a focus for intervention development, instruction, and policy development (Lonigan et al., 2008).

**Sound Awareness.** Sound awareness, also known as phonological awareness, incorporates understanding, decoding, and blending of sounds. It is the recognition and manipulation of the syllables, graphemes, and phonemes to develop words. The initial step for sound awareness is the understanding that each letter makes a sound and the combination of these sounds makes a word (Lonigan, 2006). It encompasses the

conscious ability to “attend to and manipulate individual sounds or phonemes making up speech...cracking the spelling-to-sound code” (Rush, 1999, p.4). Rhyming and alliteration practices can assist a child in recognizing and understanding similarities and differences among words. A study by Lonigan et al. (2008) demonstrated phonological awareness skills predicted later reading abilities, even when the variables of alphabet knowledge, oral language, and decoding were controlled.

**Oral Language.** Oral language includes the vocabulary, syntax, and narrative understanding children have. It is the child’s knowledge and understanding for labels of items and constructs (Lonigan, 2006). This skill is important to understand and develop as Glazer (1989) believed “without oral language, it might be impossible to develop the ability to read and write” (p.19). This has been supported with a study by Fernald and Weisleder (2011), which identified deficits in oral language within the early childhood years have been associated with later reading problems.

**Print Awareness.** Print awareness incorporates an understanding for the function of the written language along with the relationship between the spoken and written words (Gettinger & Stoiber, 2014). A child’s understanding of this concept is learned by identifying the differences between pictures on a page with letters and words (Lonigan, 2006). Additionally, it incorporates rules within the written language, such as reading from left to right and top to bottom. Lonigan (2006) identified print awareness as the understanding for books and written language. Although this emergent literacy skill is important for the growth of additional conventional skills, other skills have been

demonstrated to be a stronger predictor for later reading skills (Phillips & Lonigan, 2009).

### **Current Study**

Evidence has demonstrated positive effects for literacy development with early intervention. When young children are faced with individual and environmental risk factors, they are at a greater risk for not developing essential competencies. As a means to close the achievement gap, more research is needed to better understand the contextual and personal characteristics that play a prominent role within a child's life. Additionally, more explicit knowledge regarding the resilience factors that predict responsiveness to early intervention can aid in a positive trajectory over the year. In particular, as early as the preschool year, many children from low-income backgrounds have been identified as struggling learners (Hindman et al., 2010). A more specific understanding for characteristics of children who are at risk for literacy problems is necessary to better design and implement interventions (Hindson et al., 2005) along with possessing important implications for early education programs (Duncan et al., 2007).

The Process-Person-Context-Time model was utilized to examine the development of children's literacy skills in the contexts of a child's social competence and the home environment. This model provided a useful framework to guide the examination of relations among key predictors in the development of literacy skills at the various levels of influence. The study incorporated two factors within the model. The positive and challenging social competence factors are conceptualized as the person variable while the parent enrichment activities and parental dialogic reading practices

aligned with the contextual variable. All the elements included in the current model have been linked, alone or in some combination, to children's emergent literacy skills. No study has examined how the combination and unique influences within the combination are related to emergent literacy skills.

The primary purpose of this cross-sectional study was to examine the factors that affect a child's ability to develop emergent literacy skills. The current study explored three research questions:

- 1.) What are the relations of personal (positive behavior, challenging behavior) and contextual (parent enrichment activities, parental dialogic reading practices) factors on young urban children's emergent literacy skills?
  - a.) What are the relations of the personal and contextual factors on children's vocabulary skills?
  - b.) What are the relations of the personal and contextual factors on children's alphabet knowledge?
  - c.) What are the relations of the personal and contextual factors on children's sound awareness?

As the field places more emphasis on the importance of understanding the personal and contextual factors, researchers have become increasingly aware for the need to better detect the specific predictors, along with the interplay among factors. Past researchers have indicated a significant influence for the personal factor of social competence (Bierman et al., 2008; Stoiber & Kratochwill, 2002; Elias & Hayes, 2008)

and the contextual variable of the home environment (de Jong & Leseman, 2001; Foster et al., 2005; Weigel, Martin, & Bennett, 2006) to play a role in early literacy skills. Specifically, a low rate of challenging behaviors with a combination of high positive behaviors has increased a child's ability to gain emergent literacy skills (Stoiber, 2014). Additionally, high quantity of enrichment activities (Bennet, Weigel, & Martin, 2002) and high quality of dialogic reading practices (Cline & Edwards, 2013) have played a significant role in positive outcomes for preschool aged children (Stoiber et al., 2011). Based on past research, it was predicted that a high rate of positive social competence, enrichment activities, and dialogic reading paired with a low rate of challenging behavior would significantly predict emergent literacy skills. The social competence factor, in particular, was predicted to have a stronger relation within the model due to the proximity of the variable to the child (Hindman, Skibbe, Miller, & Zimmerman, 2010).

### **Chapter 3**

#### **Methods**

##### **Participants**

The sample for this study consisted of 121 three and four year old children enrolled in full-time Head Start preschools within the Milwaukee area, and participants in Project EMERGE classrooms. The students ranged in age from 35 months to 60 months at the start of the school year with an average age of 45.8 months ( $SD = 6.95$ ). Fifty-three percent of the students were male and the majority was African American.

Adult participants included the children's teachers and parents, who completed rating forms or surveys measuring predictor variables examined in the study. One hundred twenty-one parents participated, as each family was asked to complete a parent survey developed by Project EMERGE Co-PIs, Karen Stoiber and Maribeth Gettinger. A majority of parent participants identified as African American (n = 91; 75.2%). Parent participants also identified as White (n = 13; 10.7%), Hispanic (n = 7; 5.8%), Other (n = 6; 5%), and Asian (n = 1; .8%). Over 60% (n = 73) of participants indicated an age between 21 and 30; 24% (n = 29) reported an age between 31 and 40; 8.2% (n = 10) indicated an age between 41 and 50; 2.5% (n = 3) indicated their ages as being under 20 years; and 2.5% (n = 3) reported an age between 51 and 60. A majority of guardians indicated the relationship to the child as a mother (n = 105; 86.8%), grandparents were 4.1% (n = 5), aunts were 3.3% (n = 4), fathers were .8% (n = 1), and foster parents were .9% (n = 1). The largest number of participants indicated they were single (n = 88; 72.7%), 19% (n = 23) were married, and 4.1% (n = 5) were divorced. Many guardians indicated obtaining some college (42.1%; n = 51), while 25 individuals reported graduating from high school (20.7%) as highest education level, and 22 guardians indicated graduating from college (18.2%), 16 participants endorsed some high school (13.2%), and four reported attending or completing graduate school (3.3%). For the categories discussed, five participants had missing demographic information accounting for 4.1% of the data. (See Table 2).

Fifteen lead teachers within 15 classrooms also served as active participants. Of the Head Start teachers, 80 percent of teachers were female while 20 percent were male. The majority of individuals reported obtaining an associate degree (53.3%), 26.7%

reported completing some college, 6.7% indicated a high school diploma, 6.7% reported obtaining a bachelor's degree, and 6.7% of individuals were missing educational data.

Additionally, the years of teaching in a Head Start classroom ranged from 3-33 years:

26.7% (under 10 years), 33.3% (11 to 20 years), 26.8% (21 to 30 years), and 13.4% (30 and over years). (See Table 3).

Table 1

*Parent Demographics*

Characteristic	% of Participants
<b>Gender</b>	
Female	90.9
Male	5.0
Missing	4.1
<b>Relationship to Child</b>	
Mother	86.8
Father	.8
Grandparent	4.1
Aunt	3.3
Foster Parent	.9
Missing	4.1
<b>Age</b>	
Under 20	2.5
21-30	60.3
31-40	24.0
41-50	8.2
51-60	2.5
Missing	2.5
<b>Racial Group</b>	
African American	75.2
Hispanic	5.8
Asian or Pacific Islander	.8
White	10.7
Mixed	5.0
Missing	2.5
<b>Schooling</b>	
Some high school	13.2
High School Diploma	20.7
Some College	42.1
College Diploma	18.2
Graduate School	3.3
Missing	2.5
<b>Marital Status</b>	
Married	19.0
Single	72.8
Divorced	4.1
Missing	4.1

*Note.* Frequencies were calculated with 121 participants.

Table 2

*Teacher Demographics*

Characteristic	% of Participants
<b>Gender</b>	
Female	80
Male	20
<b>Schooling</b>	
High School	6.7
Some College	26.7
Associate	53.3
Bachelor	6.7
Missing	6.7
<b>Years of Work</b>	
Under 10	26.7
11-20	33.3
21-30	26.8
Above 31	13.4

*Note.* Frequencies were calculated with 15 teacher participants.

**EMERGE**

The current study is part of a larger, federally funded research project: Exemplary Model of Early Reading Growth and Excellence (EMERGE) (Stoiber & Gettinger, 2007; 2011; 2012). This project was funded through the Early Reading First project within the Department of Education. The program utilizes evidence-based practices to implement and develop emergent literacy skills (Gettinger & Stoiber, 2007, 2012). The goals of this program are to apply a multitiered instructional model and promote high-quality environments. These environments are developed to assist with learning necessary skills and increase positive learning experiences (Gettinger & Stoiber, 2012; 2014). To fulfill these goals, a research based curriculum along with effective instruction and activities are

applied. Additionally, high quality literacy materials and resources are provided to ensure quality environments (Gettinger & Stoiber, 2007). To assist with the development of emergent literacy skills for preschool children, EMERGE incorporated professional development and coaching for teachers along with involvement of families through newsletters and family libraries. Additionally, progress monitoring was utilized as a means to develop benchmarks to identify struggling learners and implement appropriate second or third tiered interventions (Gettinger & Stoiber, 2007, 2012).

An evaluation by Lieberman-Betz, Vail, and Chai (2013) looked at the components of the EMERGE program in correspondence with an evidence-based program for preschool classrooms using criteria established by Lieberman-Betz, Vail, and Chai (2013). The Lieberman-Betz, Vail, and Chai (2013) study concluded EMERGE demonstrated evidence-based practices for promoting positive and healthy families through primary nurturing contexts, strengthening relationships, learning by active participation, mediating the child's learning ability, participating in developmentally appropriate settings, including goal-oriented practices, and enhancing change by applicable adults (Lieberman-Betz et al., 2013). The evaluation by Lieberman-Betz, Vail, and Chai (2013) concluded EMERGE utilized evidence based practices within Head Start preschool programs.

## **Procedure**

**Recruitment.** Any child who attended the Head Start program in designated EMERGE classrooms was eligible to join the study. All parents or guardians in each participating classroom were given an informational consent letter at the beginning of the

school year allowing their child to participate in the educational assessments. The parents were provided directions to return this consent form to the teacher. Contact information for the Project Co-PIs and the assessment director was provided on the consent form for parents to ask questions or report concerns.

Data Collection. The children with consent were administered the PPVT-III and PALS Pre-K measures in the spring of the 2011-2012 school year by trained research assistants. The testing session lasted approximately 15-20 minutes for each student. The children accompanied the research assistant to a quiet room or area within the school building to complete the assessment. All children were administered the PPVT-III for vocabulary knowledge and PALS-PreK for alphabet knowledge. The sound awareness portion within the PALS-PreK measure was only administered to select number of children within the sample who qualified. A child qualified to complete the sound awareness portion of the PALS-PreK if he/she correctly identified sixteen Upper Case and nine Lower Case letters in the alphabet knowledge subscale of the PALS-PreK. The parent or guardian for each participant was provided a parent survey (described below) in the spring and was asked to complete it within two weeks. Guardians were directed to deliver the parent survey to the student's teacher. During the same time period, the teachers were provided a social competence rating scale for each child and asked to complete based on the child's presenting behaviors within the classroom. Research assistants collected the parent surveys and child rating forms from each classroom upon completion, and applied research numbers to the protocols so that no parent or teacher identity would be apparent.

## **Assessment measures**

Four measures were utilized within the study to measure: children's emergent literacy skills (alphabet knowledge, vocabulary skills, sound awareness), social-emotional competence, and home literacy environment.

### **Predictor Variables**

**Individual Factors.** A measure of child's social competence skills was collected to comprehensively understand the individual factors of the child. This teacher-report measure was completed in the spring of the academic year. Questions from the *Social Competence Performance Checklist* (SCP Checklist) of the Functional Assessment and Intervention System: Improving School Behavior (FAIS; Stoiber, 2004) were utilized to gather these child factors. The forty-two item measure was adapted from the 50-item SCP Checklist, which contains two subscales: positive behavior and challenging behavior. The Positive Behavior scale used in the current study consisted of 17 questions that fell under four subscales: Self-Control, Social Cooperation, Learning Behaviors, Pre-Academic Performance. The Challenging Behavior scale included 25 questions that fell under four subscales: Aggression, Distractibility, Noncompliance, and Negative Affect. The students were rated on a four-point Likert scale that ranged from 0-3 (0=Rarely, 1=Sometimes, 2=Often, 3=Mostly, N=No Opportunity to Observe). As reported by Stoiber (2004), the SCP Checklist has an interrater agreement of .97 for the Positive Behavior scale and .94 for the Challenging Behavior scale (individual subscale coefficient alphas range from .85 to .96). The inter-rater reliability for the SCP Checklist reported in the FAIS manual is considered strong: a high level of agreement was found

between pairs of teachers who rated the same child on the Positive Behavior scale and Challenging Behavior scale (.90, and .93, respectively; .95 total SCPC score).

Discriminant function analysis on the SCP Checklist further suggested that it has good criterion-related validity.

Parents' perceptions of their involvement in the home environment were examined through the Home Literacy Environment Questionnaire. This measure was created specifically for the EMERGE project by Stoiber and Gettinger. This parent-report survey was completed in the spring of the academic year. This questionnaire has six subscales for the home environment: Parent Enrichment Activities, Parental Dialogic Reading Practices, Parent Early Literacy Behavior, Child Reading Interest, Child Book Reading Behavior, and Child Early Literacy Behavior. For the purpose of the current study, the Parent Enrichment Activities and Parental Dialogic Reading Practices were included. The Parent Enrichment Activities subscale evaluates the types of emergent literacy activities the child participated during a typical week. Thirteen questions assessed the quantity of early literacy activities such as how often the parent read a book at bedtime, sang songs, had conversations about activities, and made up rhymes. Parent/guardians provided responses to questions on a 4-point Likert scale (1 = never, 2 = few times (1-2 times), 3 = sometimes (3-5 times), 4 = daily (6-7 times)). The Parental Dialogic Reading Practices subscale consisted of sixteen questions to evaluate the quantity of the parental instructional interactions within literacy activities. The questions include the child finding letters, describing photos, asking what will happen next, and telling the story in the child's own words. These questions are answered on the same 4-point Likert scale. The Home Literacy Environment Questionnaire has an internal

consistency of .79 for the Parent Enrichment Activities scale and .72 for the Parent Dialogic Reading Practices scale. These reliability scores are considered strong.

### **Academic Variables**

Early literacy Skills. All preschool children were also administered the *Phonological Awareness and Literacy Screening-PreKindergarten (PALS-PreK;* Invernizzi, Sullivan, Meier, & Swank, 2004). This assessment measure was administered at the end of the school year. This measure is criterion referenced and focused on the emergent literacy skills predictive of future reading success: upper and lower case alphabet recognition, letter sounds, beginning sound awareness, print and word awareness, and nursery rhyme awareness. For the purpose of the current study, the researcher selected the Alphabet Knowledge and Sound Awareness subtests to evaluate emergent literacy skills. Specifically, the Upper-Case Alphabet Recognition subtest includes the 26 upper-case letters randomly placed on a card. Students were asked to verbalize the name of each letter. For the Sound Awareness subtest, the examiner pointed to a letter or digraph (ch, sh, th) in a random order and the child verbalized the sound. The evaluator marked if the letter or sound was articulated correctly or not and totaled for a raw score. Invernizzi et al. (2004) reported inter-rater reliability of .99. Additionally, correlations for validity range from .61 to .71 with similar assessments.

Emergent Literacy Skills. All preschool children were also administered the *Peabody Picture Vocabulary Test-Third Edition (PPVT-III;* Dunn & Dunn, 1997). This assessment measure was administered at the end of the academic year. The PPVT-III is an achievement test of receptive vocabulary skills that measures listening comprehension

of spoken words for children and adults. Trained testers administered this assessment to each student. The PPVT-III can be administered to individuals from 2-90+ years of age. It contains 204 test items that are grouped into 17 sets with 12 items each. Each set becomes increasingly more difficult for the individual. The administrator asked the individual to point to a verbally given word. The student then selected the picture that best represented the identified word. These words were continually given until the appropriate basal and ceiling sets were determined. The student obtain a basal by getting 0 or 1 wrong in a set, while the ceiling was determined by getting eight or more errors in a set. Once the test administration was finished, the administrator referenced the norms tables provided to obtain the standard score for the student. The standard score has a mean of 100 and a standard deviation of 15. Dunn and Dunn (1997) report reliability for internal consistency ranging from .92 to .98 with .95 as the median. Additionally, the test-retest range from .91 to .94 with .92 as the median. The PPVT-III has an average correlation of .69 with the OWLS Listening Comprehension scale and .74 with the OWLS Oral Expression scale. The PPVT-III was also correlated with measures that look at verbal ability: WISC-III VIQ (.91), KAIT Crystallized IQ (.89), and K-BIT Vocabulary (.81).

### **Control Variable**

Gender served as a control variable due to the inconsistent findings on emergent literacy skills. The reason for using gender as a control is due to some research suggesting higher performance for females being revealed when significant findings occur (Ready et al., 2005). Age is also included as a control for the criterion-based

academic variables of sound awareness and alphabet knowledge. The PALS PreK measure does not account for the differences of performance between ages for the children tested.

### **Data Analysis**

**Analysis 1:** To examine the research questions, what are the relations for the personal and contextual factors on young urban children's growth of emergent literacy skills, the data was evaluated through hierarchical multiple regression analyses. This analysis was proposed to better understand the predictive power for the independent variables- positive social competence behaviors, challenging social competence behaviors, parental dialogic reading practices, and parent enrichment activities- over and above that offered by all the variables independently. The independent variables were used to predict three dependent spring emergent literacy skills (vocabulary skills, alphabet knowledge, sound awareness) through separate analyses. First, t-test analyses were utilized to identify if significant differences arose between gender and age for each dependent variable. If significant results were evident, gender and age would be utilized as control variables. Specifically, based on theoretical grounds the predictive variables were entered in multiple steps. The gender and age variables, if applicable, would be entered in the first step, the personal factors (positive social competence behaviors, challenging social competence behaviors) would be entered into the second step, and the home environment factors (parent enrichment activities, parental dialogic reading practices) would be entered into the third step. If the gender and age variables were not

significant, the personal factors would be entered in the first step and the contextual factors would be entered within the second step.

The first analysis included the control variable of gender, if applicable, along with the four predictive variables (positive behavior, challenging behavior, parental dialogic reading practices, parent enrichment activities) to predict the spring vocabulary skills through the PPVT- III measure. The second analysis included the control variables of gender and age, if applicable, along with the four predictive variables (positive behavior, challenging behavior, parental dialogic reading practices, parent enrichment activities) to predict the spring alphabet knowledge score through the PALS-Prek measure. Finally, the third analysis included the control variables of gender and age, if applicable, along with the four predictive variables (positive behavior, challenging behavior, parental dialogic reading practices, parent enrichment activities) to predict the spring sound awareness score through the PALS-Prek measure.

## **CHAPTER 4**

### **Results**

#### **Preliminary Data Analysis**

The Statistical Package for the Social Sciences (SPSS 18 for Windows) program was used to conduct the statistical analyses for this study. Prior to answering the research questions, descriptive statistics were calculated (see Table 3). Subsequently, the distribution of values for skewness and kurtosis were also examined. According to Tabachnick and Fidell (2007), distribution of values is normal if the skewness and

kurtosis (Table 4) are not significantly different from zero. Based on this information, all values were determined to fall within the normal distribution limits. Additionally, the internal consistency of the Social Competence Performance Checklist and Home Literacy Environment Questionnaire were computed for the current study. The Social Competence Performance Checklist measure had internal consistency of .95 for the Positive Behavior scale and .97 for the Challenging Behavior scale. The Home Literacy Environment Questionnaire demonstrated an internal consistency of .80 for the Parent Enrichment Activities scale and .83 for the Parent Dialogic Reading Practices scale. These reliability scores are considered strong.

Table 3

*Descriptive Statistics*

	N	Mean (SD)	Minimum	Maximum	% Missing
<b>Child Characteristics</b>					
Child age (months)	121	45.89 (6.96)	35	60	0
Child Gender	121				0
<b>Language and Literacy</b>					
Alphabet Knowledge	121	13.42 (9.94)	0	26	0
Sound Awareness	54	10.89 (6.49)	0	24	55.38
Vocabulary Skills	121	94.92 (14.26)	57	131	0
<b>Social-Emotional Competence</b>					
Positive Behavior	121	35.03 (12.14)	5	51	0
Challenging behavior	121	14.68 (15.47)	0	61	0
<b>Home Literacy Environment</b>					
Enrichment Activities	121	30.37 (4.98)	17	40	0
Dialogic Reading	121	39.13 (6.56)	22	52	0

Table 4

*Skewness and Kurtosis*

	Skewness	Kurtosis
Language and Literacy		
Alphabet Knowledge	.034	-1.619
Sound Awareness	.100	-.880
Vocabulary Skills	-.102	-.137
Social-Emotional Competence		
Positive Behavior	-.473	-.885
Challenging behavior	1.230	.609
Home Literacy Environment		
Enrichment Activities	-.130	-.747
Dialogic Reading	-.510	-.057

Intercorrelations among independent variables were computed to check for a high relationship (collinearity) between predictors that result in a biased estimation of regression statistics. Intercorrelations among the independent predictor variables suggested a low to moderate relationship. Correlations that were moderate and found to be significant at a  $\alpha=.05$  level included the following: Alphabet Knowledge and Vocabulary Skills ( $r = .412$ ), Alphabet Knowledge and Sound Awareness ( $r = .593$ ), Alphabet Knowledge and Positive Behaviors ( $r = .324$ ), Vocabulary Skills and Positive Behaviors ( $r = .303$ ), Sound Awareness and Positive Behavior ( $r = .400$ ), Sound Awareness and Challenging Behavior ( $r = -.335$ ). Moderate correlations were found for the two social competence predictor variables, Positive Behavior and Challenging Behavior ( $r = -.698$ ), and for the two parent involvement measures, Enrichment Activities and Dialogic Reading ( $r = .612$ ). Field (2013) suggests correlations higher than .80 could

indicate concerns with multicollinearity. The correlations do not exceed this cut off value, and, therefore, do not suggest a concern with multicollinearity. (See Table 5).

Table 5

*Intercorrelations Among Continuous Variables*

	Alphabet Knowledge	Vocabulary Skills	Sound Awareness	Positive Behavior	Challenging Behavior	Enrichment Activities	Dialogic Reading
Alphabet Knowledge	--	.412**	.593**	.324**	-.114	-.036	.109
Vocabulary Skills		--	.160	.303**	-.083	.097	.186*
Sound Awareness			--	.400*	-.335*	-.164	-.065
Positive Behavior				--	-.698**	.115	.140
Challenge Behavior					--	-.113	-.044
Enrichment Activities						--	.612**
Dialogic Reading							--

\*  $p \leq .05$ , \*\*  $p \leq .01$ .

Independent t-test analyses were conducted to examine the mean differences for gender between the continuous academic variables of sound awareness, alphabet knowledge, and vocabulary skills. The results did not indicate significant differences between males and females for sound awareness ( $p = .52$ ), alphabet knowledge ( $p = .87$ ), or vocabulary skills ( $p = .87$ ) (Table 6). These results revealed no significant differences were evident between the males and females, thus demonstrating gender does not need to be included as a control variable within the multiple regression analyses.

Table 6

*T-test Between Gender and All Continuous Academic Variables*

<i>Variable</i>	Male			Female			<i>df</i>	<i>T</i>	<i>p</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>			
Vocabulary Skills	64	94.14	15.25	57	95.79	13.14	119	-.63	.52
Alphabet Knowledge	64	13.28	10.17	57	13.58	9.76	119	-.16	.87
Sound Awareness	28	10.75	6.19	26	11.04	6.92	52	-.16	.87

*Note.* \*  $p < .05$

Independent t-tests were conducted to examine the mean differences between ages for the criterion-based academic variables of sound awareness and alphabet knowledge. The results did not indicate significant differences between three and four year olds for sound awareness ( $p = .67$ ) or alphabet knowledge ( $p = .09$ ) (Table 7). These results revealed no significant differences were evident between the three and four year olds, thus demonstrating age does not need to be included as a control variable within the multiple regression analyses.

Table 7

*T-test Between Age and Criterion Academic Variables*

Variable	3 year olds			4 year olds			df	T	p
	N	M	SD	N	M	SD			
Alphabet Knowledge	52	11.63	9.80	69	14.77	9.90	119	-3.13	.09
Sound Awareness	19	10.37	7.85	35	11.17	5.74	52	-.80	.67

Note. \*  $p < .05$

### Hypothesis One

The research hypothesis examined the relations of the personal (positive behavior, challenging behavior) and contextual (parent enrichment activities, parental dialogic reading practices) factors on young urban children's emergent literacy skills. This hypothesis was partially supported.

### Multiple Regression Assumption Checks

Several assumptions must be met for results of a hierarchical regression analysis to be valid. The current analysis was evaluated for concerns with outliers. No extreme scores were present through an evaluation of the standardized residual plot as all scores fell below the cutoff point of 3.3 (Tabachnick & Fidell, 2007). Multicollinearity and singularity were also evaluated through an analysis of correlations. As stated previously, the correlations for the current variables fell below  $r = .8$ , indicating no concerns for multicollinearity (Field, 2013). Additionally, the variance inflation factor determined all variables fell within normal limits. The assumptions of normality, linearity,

homoscedasticity, and independence of residuals were found to be appropriate for the analyses within this study.

### **Hierarchical Regression Results**

Hypothesis (1a) evaluated how well the personal and contextual factors of the child predicted vocabulary skills. Gender was not included in this model as a control variable due to no evidence of significant differences between genders for this academic variable. Age also was not included as a control variable due to use of the standard score for the PPVT-III. Table 8 presents results from this hierarchical regression analysis. The relationship between the personal variables (positive and challenging behaviors) and vocabulary skills was significant  $R^2 = .12$ , adjusted  $R^2 = .112$ ,  $F(2, 118) = 8.33$ ,  $p < .01$ . The contextual variables (enrichment activities and dialogic reading) did not predict significantly over and above the personal factors for vocabulary,  $R^2$  change  $.14$ ,  $F(2, 116) = 1.18$ ,  $p = .311$ . The Challenging behavior construct ( $\beta = .250$ ,  $p < .05$ ) along with the Positive Behavior construct ( $\beta = .477$ ,  $p < .01$ ) reached significance within the first model. Additionally, the Positive Behavior variable ( $\beta = .448$ ,  $p < .01$ ) maintained significance when the contextual factors were added. Results indicated the children with high levels of positive behavior and high levels of challenging behavior tended to demonstrate positive vocabulary skills when solely looking at the personal factors. High positive behaviors continued to play a significant role in a higher skill level for vocabulary knowledge even when the contextual factors were accounted for within the model.

Table 8

*Hierarchical Regression Analysis Summary for Personal and Contextual Factors  
Predicting Vocabulary Skills*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1:					.124***	
Constant	71.918	6.313				
Positive Behavior	.560	.141	.477***	.000		
Challenging Behavior	.230	.111	.250**	.040		
					.141	.112
Step 2:						
Constant	62.573	10.019				
Positive Behavior	.526	.143	.448***	.000		
Challenging Behavior	.215	.112	.234	.056		
Enrichment Activities	.311	.239	.143	.884		
Dialogic Reading	-.046	.314	-.016	.197		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

An examination of the data and analysis indicated evidence of challenging behavior as a suppressor variable. Challenging Behavior was not significantly correlated with Vocabulary Skills ( $r = -.083, p = .365$ ) while Positive Behavior was significantly correlated ( $r = .303, p < .001$ ). The predictor variables of Positive Behavior and Challenging Behavior were also significantly correlated ( $r = -.698, p < .001$ ). When these variables were included within the regression model, the regression coefficient increased for Challenging Behaviors ( $\beta = .250$ ). Additionally, the correlational analysis identified a negative relationship between Challenging Behaviors and Vocabulary Skills while the regression analysis demonstrated a positive relationship between the two variables. These results indicated the Challenging Behavior variable played a suppressor role within the model.

To further investigate a suppression effect, the variable of Positive Behavior was removed from the hierarchical regression analysis. The current analysis evaluated how well the challenging behavior variable and contextual factors of the child predicted vocabulary skills. The relationship between the personal variable (challenging behaviors) and vocabulary skills was not significant  $R^2 = .007$ , adjusted  $R^2 = -.001$ ,  $F(1, 119) = .829$ ,  $p = .365$ . The contextual variables (enrichment activities and dialogic reading) did not predict significance over and above the personal factor,  $R^2$  change  $.034$ ,  $F(2, 117) = 2.08$ ,  $p = .130$ . The Challenging behavior construct ( $\beta = -.114$ ,  $p = .215$ ) no longer reached significance within the first model. Results indicated the Challenging Behaviors and contextual variables did not predict Vocabulary Skills for preschool aged children (See Table 9).

Table 9

*Hierarchical Regression Analysis Summary for Challenging Behaviors and Contextual Factors Predicting Vocabulary Skills*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	<i><math>\beta</math></i>	<i>p</i>	<i>R<sup>2</sup></i>	<i><math>\Delta R^2</math></i>
Step 1:					.007	
Constant	9.370	1.209				
Challenging Behavior	-.071	.057	-.114	.215	.041	.016
Step 2:						
Constant	7.803	6.074				
Challenging Behavior	-.078	.057	-.124	.174		
Enrichment Activities	.316	.168	.215	.063		
Dialogic Reading	-.352	.223	-.182	.117		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

The Positive Behavior factor was the sole personal variable utilized for interpretation of the final model due to the knowledge of Challenging Behaviors having a

suppression effect within the original hierarchical regression model. The current analysis evaluated how well the positive behavior and contextual factors of the child predicted vocabulary skills. The relationship between the personal variable (positive behavior) and vocabulary skills was significant  $R^2 = .092$ , adjusted  $R^2 = .084$ ,  $F(1, 119) = 12.02$ ,  $p < .01$ . The contextual variables (enrichment activities and dialogic reading) did not predict significance over and above the personal factor,  $R^2$  change  $.022$ ,  $F(2, 117) = 1.45$ ,  $p = .239$ . The Positive Behavior construct reached significance within the first ( $\beta = .303$ ,  $p < .001$ ) and second ( $\beta = .284$ ,  $p < .002$ ) models. Results indicated the children with high levels of positive behavior demonstrated increased vocabulary skills when solely looking at the personal factors. High levels of positive behaviors continued to play a significant role in higher vocabulary skill abilities even when the contextual factors were accounted for within the model. (See Table 10).

Table 10

*Hierarchical Regression Analysis Summary for Positive Behaviors and Contextual Factors Predicting Vocabulary Skills*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>p</i>	<i>R<sup>2</sup></i>	<i>Δ R<sup>2</sup></i>
Step 1:					.092**	
Constant	82.457	3.802				
Positive Behavior	.356	.103	.303**	.001	.114	.091
Step 2:						
Constant	72.254	8.769				
Positive Behavior	.333	.103	.284**	.002		
Enrichment Activities	.370	.240	.171	.125		
Dialogic Reading	-.115	.315	-.040	.716		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Hypothesis (1b) evaluated how well the personal and contextual factors of the child predicted alphabet knowledge. Gender and age were not included as control variables within this model as no evidence of significant differences were found for this variable. Table 11 presents results from this hierarchical regression analysis. The relationship between the personal variables (positive and challenging behaviors) and the alphabet knowledge skill was significant  $R^2 = .156$ , adjusted  $R^2 = .142$ ,  $F(2, 118) = 10.93$ ,  $p < .01$ . The contextual variables (enrichment activities and dialogic reading) did not predict children's alphabet knowledge significantly over and above the personal factors,  $R^2$  change .02,  $F(2, 116) = 1.22$ ,  $p = .300$ . The Challenging behavior construct ( $\beta = .255$ ,  $p < .05$ ), along with the Positive Behavior construct ( $\beta = .528$ ,  $p < .01$ ), reached significance within the first model. Additionally, the Positive Behavior variable ( $\beta = .509$ ,  $p < .01$ ) maintained significance when the contextual factors were added. Results indicated the children with high levels of positive behavior and high levels of challenging behavior tended to demonstrate positive alphabet knowledge when solely looking at the personal factors. High positive behaviors continued to play a significant role in a higher ability level for alphabet knowledge, even when the contextual factors were accounted for within the model.

Table 11

*Hierarchical Regression Analysis Summary for Personal and Contextual Factors  
Predicting Alphabet Knowledge*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>p</i>	<i>R<sup>2</sup></i>	<i>Δ R<sup>2</sup></i>
Step 1:					.156***	
Constant	-8.704	4.190				
Positive Behavior	.420	.094	.528***	.000		
Challenging Behavior	.159	.074	.255**	.033		
					.174	.145
Step 2:						
Constant	-6.980	6.648				
Positive Behavior	.404	.095	.509***	.000		
Challenging Behavior	.143	.074	.230	.055		
Enrichment Activities	.211	.159	.144	.147		
Dialogic Reading	-.304	.208	-.157	.186		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

The suppression effect was also evident when evaluating Alphabet Knowledge. Challenging Behavior was not significantly correlated with Alphabet Knowledge ( $r = -.114, p = .215$ ) while Positive Behavior was significantly correlated with Alphabet Knowledge ( $r = .324, p < .001$ ). The predictor variables of Positive Behavior and Challenging Behavior were also significantly correlated ( $r = .698, p < .001$ ). When these variables were included within the regression model, the regression coefficient was increased for Challenging Behaviors ( $\beta = .255$ ). Additionally, the correlational analysis identified a negative relationship between Challenging Behaviors and Alphabet Knowledge while the regression analysis demonstrated a positive relationship between the two variables. These results indicated the Challenging Behavior variable played a suppressor role within the model.

To further investigate a suppression effect, the variable of Positive Behavior was removed from the hierarchical regression analysis. The current analysis evaluated how well the challenging behavior variable and contextual factors of the child predicted their alphabet knowledge. The relationship between the personal variable (challenging behavior) and alphabet knowledge was not significant  $R^2 = .013$ , adjusted  $R^2 = .005$ ,  $F(1,119) = 1.56$ ,  $p = .215$ . The contextual variables (enrichment activities and dialogic reading) also did not predict significance over and above the personal factor,  $R^2$  change  $.031$ ,  $F(2, 117) = 1.91$ ,  $p = .152$ . The Challenging behavior construct ( $\beta = -.114$ ,  $p = .215$ ) no longer reached significance within the first model. Results indicated the Challenging Behaviors and contextual variables did not predict Alphabet Knowledge for preschool aged children (see Table 12).

Table 12

*Hierarchical Regression Analysis Summary for Challenging Behaviors and Contextual Factors Predicting Alphabet Knowledge*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>p</i>	$R^2$	$\Delta R^2$
Step 1:					.013	
Constant	9.370	1.209				
Challenging Behavior	-.071	.057	-.114	.215		
					.044	.031
Step 2:						
Constant	7.803	6.074				
Challenging Behavior	-.078	.057	-.124	.174		
Enrichment Activities	.316	.168	.215	.063		
Dialogic Reading	-.352	.223	-.182	.117		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

The Positive Behavior factor was the sole personal variable utilized for interpretation of the final model due to the knowledge of Challenging Behaviors having a

suppression effect within the original hierarchical regression model. The current analysis evaluated how well the positive behavior and contextual factors of the child predicted Alphabet Knowledge. The relationship between the personal variable (positive behaviors) and Alphabet Knowledge was significant  $R^2 = .123$ , adjusted  $R^2 = .115$ ,  $F(1, 119) = 16.668$ ,  $p < .001$ . The contextual variables (enrichment activities and dialogic reading) did not predict alphabet knowledge significantly over and above the personal factor,  $R^2$  change  $.024$ ,  $F(2, 117) = 1.65$ ,  $p = .196$ . The Positive Behavior construct reached significance within the first ( $\beta = .351$ ,  $p < .001$ ) and second ( $\beta = .347$ ,  $p < .001$ ) models. Results indicated the children with high levels of positive behavior demonstrated positive Alphabet Knowledge when solely looking at the personal factors. High levels of positive behaviors continued to play a significant role in a higher level of Alphabet Knowledge abilities, even when the contextual factors were accounted for within the model. (See Table 13).

Table 13

*Hierarchical Regression Analysis Summary for Positive Behaviors and Contextual Factors Predicting Alphabet Knowledge*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>p</i>	<i>R<sup>2</sup></i>	<i>Δ R<sup>2</sup></i>
Step 1:					.123***	
Constant	-1.421	2.527				
Positive Behavior	.278	.068	.351***	.000		
					.147	.125
Step 2:						
Constant	-.532	5.819				
Positive Behavior	.276	.069	.347***	.000		
Enrichment Activities	.251	.159	.171	.118		
Dialogic Reading	-.350	.209	-.181	.097		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Hypothesis (1c) evaluated how well the personal and contextual factors of the child predicted sound awareness. Gender and age were not included in this model as control variables due to no evidence of significant differences for this variable. The relationship between the personal variables (positive and challenging behaviors) and the sound awareness skill was significant  $R^2 = .16$ , adjusted  $R^2 = .129$ ,  $F(2, 51) = 4.919$ ,  $p < .05$ . The contextual variables (enrichment activities and dialogic reading) did not predict significantly over and above the personal factors,  $R^2$  change  $.03$ ,  $F(2, 49) = .837$ ,  $p = .439$ . No predictor variables were significant within the model. Results indicated the personal and contextual variables were not significantly predictive of children's performance on the emergent literacy skill for sound awareness. (See Table 14).

Table 14

*Hierarchical Regression Analysis Summary for Personal and Contextual Factors Predicting Sound Awareness*

<i>Step and predictor variables</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>p</i>	<i>R<sup>2</sup></i>	<i>Δ R<sup>2</sup></i>
Step 1:					.162**	
Constant	3.243	5.633				
Positive Behavior	.204	.118	.346	.089		
Challenging Behavior	-.031	.090	-.070	.728		
					.189	.123
Step 2:						
Constant	7.961	8.248				
Positive Behavior	.203	.118	.343	.093		
Challenging Behavior	-.034	.090	-.075	.712		
Enrichment Activities	.099	.162	.098	.544		
Dialogic Reading	-.280	.219	-.205	.206		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## CHAPTER 5

### Discussion

This study was conducted to examine theoretically supported predictive variables on the development of emergent literacy skills. Specifically, this study sought to determine (a) the relations of personal and contextual factors on the emergent literacy skill of alphabet knowledge, (b) the relations of personal and contextual factors on the emergent literacy skill of vocabulary knowledge, and (c) the relations of personal and contextual factors on the emergent literacy skill of sound awareness.

#### **Personal and Contextual Factors on Emergent Literacy Abilities**

The first two hypotheses were partially supported. The personal factor of social competence (positive and challenging behavior) played a significant role in predicting academic abilities independently. Additionally, the positive behavior variable significantly predicted emergent literacy skills over and above the inclusion of the contextual factor, the home environment. Conversely, home environment factors (i.e., parent reported involvement in enrichment activities and dialogic reading practices) did not significantly predict early literacy abilities for preschool aged children on either the alphabet knowledge or vocabulary skill measures. The third hypothesis was not supported as the personal and contextual factors did not significantly predict the emergent literacy skill of sound awareness.

Evidence supporting the presence of a suppressor variable was revealed upon further evaluation of the first two research questions. The challenging behavior variable

was identified to have a classic suppression effect on the model. The results from the current model supported the notion from Gaylord-Harden et al. (2010) in which the “simultaneous inclusion of two or more predictors improves the validity of one or both predictors.” (p. 844). The beta weight for the challenging behavior variable was of the opposite sign from the correlation analysis. Specifically, the correlations between the challenging behavior factor and the early literacy variables (vocabulary skills and alphabet knowledge) were negative while the relationship between the predictor and academic variables were positive within the regression analysis. This pattern was evident in the original model as both the positive and challenging behaviors were included as predictors for alphabet knowledge and vocabulary skill models. Gaylord-Harden et al. (2010) recommended dropping the suppressor variable from the model when it is found to be substantively related to another variable. In this case, the positive and challenging behaviors are related within the construct of social competence resulting in the ability to drop the variable of challenging behaviors as a means to more thoroughly understand and interpret the findings.

### **Positive Social Competence**

The final models for alphabet knowledge and vocabulary skills solely included positive behaviors for the personal factor. Results indicated high ratings of social cooperation, learning behaviors, and self-control played a significant role in predicting positive emergent literacy skills for alphabet knowledge and vocabulary skills when examining the personal factor of positive behaviors. This information is meaningful as positive social competence emerged as a key variable independently and in collaboration

with additional variables. Previous research in this area reflects similar findings. For example, Elias and Haynes (2008) found a positive relationship between high levels of social competence and positive academic abilities. Specifically, the researchers found that children who demonstrated high levels of positive social competence abilities were able to gain essential early literacy skills despite being faced with the risk factors apparent for low SES families in an urban setting. Conversely, these results disputed findings from Herndon et al. (2013) who found that higher rates of challenging behaviors had a stronger influence on academic abilities than positive social competence behaviors. The significant relation of social competence on multiple early literacy skills found in the current study demonstrated the strong influence of positive social competence behaviors on a child's overall academic abilities.

The present study demonstrated a link between the construct of positive social competence and emergent literacy skills. Previous research has demonstrated the specific constructs within this study's measure of social competence plays a role in developing early literacy skills (Stoiber, 2014). Specifically, the role of self-control was found to have positive effects on emergent literacy abilities for preschool aged children. As indicated previously, past research emphasizes the importance of emotional regulation on concentration, following instructions, and taking turns. These skills are reported to play a role in gaining positive academic outcomes (Denham, 2006a). Research conducted in Head Start preschool classrooms has shown that children's positive affect can increase cognitive flexibility; resulting in improved academic performance and improved ability to utilize appropriate decision making (Diamond & Aspinwall, 2003; Graziano, Reavis,

Keane & Calkins, 2007; Herndon et al., 2013). In addition, children who demonstrated mastery of these skills were viewed more positively by other children and their teachers.

The social cooperation factor within social competence for this study has also been supported by prior researchers to improve academic abilities. Denham (2006b) reported the children who enter school with the ability to develop and sustain friendships, along with participating in positive interactions with teachers, were more likely to view school positively. Not surprisingly, children who interact and participate more within the school setting demonstrate better academic outcomes (Denham et al., 2003; Elias & Haynes, 2008). Herndon et al. (2013) found that children who cooperate with other children in the classroom participate and engage more in learning behaviors through play than children who did not demonstrate social cooperation. Play during the preschool year was found to have positive results on social adjustment as children learn the essential social knowledge and interactive skills with peers during this stage. Children who did not have the skills needed for social cooperation by kindergarten continued to struggle developing this skill and resulted in hindering effects on academic growth (Fantuzzo et al., 2003).

Additionally, learning behaviors within the classroom, such as keeping focused and resisting distractions (Stoiber, 2004), promoted academic outcomes. This information is supported by the current study and aligned with previous research on behavioral regulation and early academic achievement. For example, Rhoades, Warren, Domitrovich, and Greenberg (2011) found attention to play a mediating role between emotion regulation and academic skills. In other words, the more a child was able to

regulate attention, the more he/she was able to exhibit control over his/her behavior in the classroom. McClelland et al. (2007) reported similar findings in that preschool-aged children with higher behavioral regulation skills, as observed in the classroom, achieved higher levels of academic success, specifically in the area of emergent literacy.

Difficulty for interpreting results related to social competence is due, at least in part, to the different frameworks presented by researchers. Some researchers focus on emotion regulation (Denham, 2006a) while others emphasize relationship skills (Mendez, Fantuzzo, & Cicchetti, 2002). The Collaborative for Academic, Social, and Emotional Learning coalition identify five factors within social competence: self-awareness, self-management, social awareness, relationship skills, and responsible decision making while others have identified fewer factors in which these five factors are contained (e.g., Stoiber, 2004; Stoiber & Gettinger, 2011; Stoiber, 2014). Yates et al. (2007) described the difficulty with measuring social competence as possibly due to the construct being subjective in nature. Despite the differences for factors included within social competence, the results of the current study add to the past research demonstrating the variables of self-control, social cooperation, and learning behaviors, as identified by Stoiber (2004), play a prominent role in early academic abilities for children.

Results for the prediction of personal and contextual variables for the emergent literacy skill of sound awareness were not significant. It is important to note this analysis likely lacked sufficient power due to the lower sample size as it includes less than half of the overall sample size available for the other two emergent literacy measures. The results for sound awareness also should be interpreted with caution due to the lack of

variability present. The bottom portion of the distribution of child participants was not included as a result of the qualifying requirements of the PALS-PreK assessment measure.

### **Home Environment**

In the present study, parents' reports of their home environment practices were not found to significantly predict their children's emergent literacy skills. This finding was unexpected due to past research demonstrating the importance of the home environment through enrichment activities and dialogic reading practices (Drouin, 2009; Foster et al., 2005; Roberts, Jurgens, & Burchinal, 2005; Weigel, Martin, & Bennett, 2006). The results from the current study add to the conflicting research on home literacy environments. Evans, Shaw, and Bell (2000) reported that home enrichment activities only accounted for 1.2% of the variance for children in kindergarten when accounting for additional variables such as cognitive abilities, preschool experience, and age. Specifically, in the Evans, Shaw, and Bell (2000) study, general reading activities in the home environment did not significantly predict specific early literacy abilities. The results of Evans, Shaw, and Bell (2000) were consistent with those found in the current study. This previous study's findings reflect the need to identify which home environment activities are associated with particular outcome variables. Conflicting findings across studies may be explained by the label of "home involvement" as a broad construct without consideration of specific literacy-based practices within the home (Hindman & Morrison, 2011).

Hindman and Morrison (2011) examined how family involvement played a positive role in early literacy development through playing games at home, participating in conversations, and specifically teaching knowledge of emergent literacy skills. Hindman and Morrison (2011) concluded that children learn best through explicit instruction related to vocabulary and alphabet development. Further, researchers also support the positive impact of dialogic reading, or a focus on the content of printed material during book reading, on the development of emergent literacy skills (deJong & Leseman, 2001; Drouin, 2009). A recent meta-analysis also focused on the impact of reading from infancy to early adulthood concluding that shared book reading accounted for 10-12% of a child's language abilities and 8% of his or her basic reading skills (Mol & Bus, 2008). The support for these practices was not evident in the current study as the parent reported practices of home literacy activities and dialogic reading did not significantly predict early literacy abilities of their children.

There are a multitude of factors that may have impacted the lack of significant finding for the home literacy environment. One factor that should be highlighted is the use of parent report for data collection. Past studies by Blom-Hoffman et al. (2006) and Cline and Edwards (2013) found significant outcomes for dialogic reading practices by parents. These studies incorporated videotaping of the reading practices to ensure accurate analysis of instruction and behavior between the parent and child. Additionally, it is unclear what additional factors within the home setting (parental work schedule, behavior management skills, etc.) may have impacted the parent's literacy activities and instruction. Based on the results of the current study, the parent reported practices within

the home setting were not demonstrated to significantly impact emergent literacy abilities for preschool aged children.

## **Gender**

The current study adds to the conflicting evidence from previous research about the impact of gender on early literacy practices. Results from the current study demonstrated no differences for gender when evaluating vocabulary skills, alphabet knowledge, and sound awareness. These results were consistent with past researchers who have identified no gender differences present during the preschool and early elementary years (Freeman, 2004; Matthews, Ponitz, & Morrison, 2009). To more fully examine differences in emergent literacy skills across gender, it may be beneficial to further explore academic growth as children progress through the school year. Matthews, Ponitz, and Morrison (2009) concluded no gender differences were found for the early school years but reported discrepancies in academic skills starting in middle school. Specifically, they found higher academic skills for females as compared to males. Other researchers have found that female children enter kindergarten with higher academic abilities and gain skills at a higher rate than males (Ready, LoGerfo, Burkham, & Lee, 2005). The current results suggest that academic differences may not be pronounced during the first year of exposure to the classroom.

## **Limitations and Future Directions**

Limitations of this study warrant consideration and a focus for future directions in research. In the current study, the conceptualized framework focused on theoretically

supported indicators for early literacy skill development of young children. Based on this, the theory of Bronfenbrenner's bioecological model was utilized (Bronfenbrenner, 2005). Four prominent factors are included within this model: person, process, context, and time. The current study included the person and context variables, but, similar to many studies, the inclusion of all four factors was not realistic. Tudge, Mokrova, Hatfield, and Karnik (2009) acknowledged if researchers incorporated all aspects of Bronfenbrenner's theory, the study would be large and complex. Additionally, Bronfenbrenner identified not all aspects need to be utilized within his model to further understand development. Future research may aim to include the whole model to comprehensively build upon the relationships and influences of the theory as a whole. The inclusion of collecting data at multiple time periods within the school year would incorporate the time variable. Additionally, a focus on behavioral interactions between the child and his/her parent or teacher would include the factor of process.

Additionally, the individual and home environment factors were included in the model to better understand and determine predictive indicators within the model. It is important to note, this study did not examine all possible domains related to academic development for emergent literacy skills, such as the classroom environment, early development, and the parent-child relationship, as it was beyond the scope of this study. The inclusion of these additional variables would allow for a more holistic view of the child's development within his/her multiple contexts. Future research may allow for clearer understanding with the addition of these environments, to assess pertinent risk and resilience factors influencing emergent literacy development in preschool aged children.

The personal and contextual variables included within the study represented broad constructs to describe aspects of the child and his/her surrounding environments. Although the results identified significant implications for positive behaviors, it remains unclear whether specific aspects within this construct were impacting academic outcomes. Stoiber (2004) identified self-control, social-cooperation, and learning behaviors as factors within the positive behaviors construct. When looking at the dialogic reading and literacy enrichment activities, multiple components fell within these larger constructs. The sample size for the current study did not allow for a more in-depth analysis of the specific variables impacting early literacy abilities. Future research examining specific features within these constructs may assist in identification and implementation of appropriate interventions.

A longitudinal design focused on the relationship between social competence and early literacy outcomes would allow for further understanding of the relationship between the two constructs over time. The focus of this study was to evaluate the influence of the contextual and personal variables on early literacy abilities at one point in time, hindering the evaluation of these variables throughout the school year. The inclusion of evaluating these variables over time would further support Bronfenbrenner's bioecological model with the addition of the time variable. It would also improve the understanding for the developmental progression of these social competence and academic skills simultaneously. Results of this design may allow for a clearer link between the assessment and the identification for an effective intervention. Additionally, a longitudinal study may provide insight to potential modifications needed as the school year progresses and development naturally occurs.

The current study utilized three measures that were identified to be pertinent factors within emergent literacy skills: vocabulary skills, alphabet knowledge, and sound awareness. The first two factors (vocabulary skills and alphabet knowledge) were assessed for all children within the study. On the other hand, the children who were assessed for knowledge in sound awareness were required to meet criteria for the uppercase alphabet knowledge and lowercase alphabet knowledge portions of the measure to qualify to be administered the sound awareness measure. This process only allowed for select individuals to be included in the subset. The resulting low sample size for this academic measure may have hindered an accurate interpretation for the prediction of the person and contextual variables. The use of a measure such as the Comprehensive Test of Phonological Processing – Second Edition (C-TOPP) may aid in the ability to measure sound awareness skills for all children in the study.

It is important to note the home environment data was collected through the Home Literacy Environment Questionnaire, a measure created by Stoiber and Gettinger, co-directors, of the current study. A previous study completed by Stoiber, Gettinger, Van Grinsven, Hernandez, and Fenelon (2011) evaluated the relationship between the Home Literacy Environment Survey and emergent literacy skills. The results of this previous study indicated significant correlations between the home environment subscales and emergent literacy skills. The enrichment activities subscale was significantly correlated with vocabulary skills ( $r = .16, p < .01$ ) and alphabet knowledge ( $r = .28, p < .01$ ). Additionally, the dialogic reading practices scale was also significantly correlated with vocabulary skills ( $r = .30, p < .01$ ) and alphabet knowledge ( $r = .31, p < .01$ ). Despite the

significant correlations of this previous study, the measure was not found to predict emergent literacy skills significantly for the current sample of children.

Finally, the personal and contextual factors (positive behavior, challenging behavior, enrichment activities, dialogic reading) were collected through parent and teacher reported means. On the home environment survey, it is likely some parents may have under or over reported their quantity and quality of the home literacy practices. Additionally, the social competence survey may have yielded inaccuracies by the teacher's ratings of the child's behavior in the classroom. However, it should be noted that the social competence measure was found to be highly correlated with actual child behavior as rated by coders who were blind to teacher ratings (Stoiber, 2004). Future researchers may wish to include other modes of data collection when looking for accuracy of behavior, such as direct observations, for both the child's social competence abilities and participation in home literacy practices within these settings.

### **Implications for School Psychologists**

The current study highlights a variety of practical implications worth noting. Specifically, several associations for personal factors on emergent literacy development were present. The results may serve researchers, policy makers, and school personnel who wish to further investigate resilience and predictive factors of early literacy skill growth. Specifically, school psychologists have extensive training in both education and psychology, resulting in an ability to specifically assist children with academic, behavioral, emotional, and social difficulties. Additionally, school psychologists work

within multiple systems and can assist in making changes from the individual to the district level.

Social competence is a topic that has gained attention in recent years but continues to be under researched and not comprehensively understood. Results from this current study, along with past research, have demonstrated the importance of incorporating a focus on social-emotional development as a dimension to assist in the growth of emergent literacy skills for preschool aged children and literacy skills for older children. Interventions related to the behavioral and emotional needs of children may help to continue improving these academic skills for children as there is a current focus to reach academic standards. On the other hand, a sole focus on academic abilities may hinder a child's full potential as compared to attending to the whole child.

Additionally, the focus is often on improving the challenging behaviors of a child when targeting the social-emotional needs of a child. The results from the current study demonstrated the positive behaviors are a more robust factor when evaluated both individually and the inclusion of the contextual variables, the home environment. A shift in focus to implement interventions targeting positive behaviors may help build upon the resilience factors within a child to improve and develop greater gains for a child's early literacy skills.

Specifically, school psychologists play a critical role within the school setting through the implementation of the Positive Behavior Interventions and Supports Program (PBIS). School psychologists can influence the school as a whole through the first tier with making climate changes to positively impact social competence for all children

despite their need for support. Additionally, school psychologists can play an influential role in identifying children requiring more intensive services within tier two. This allows for school psychologists to focus more specifically on small groups that incorporate the social competence skills of self-awareness, self-management, and relationship skills (Osher et al., 2008). Children requiring even more intensive services of the third tier can be identified through progress monitoring of these programs by school psychologists. Interventions focused on a functional assessment will help to increase positive behavior while decreasing challenging behaviors within the third tier (Stoiber, 2014). School psychologists are within a role that can allow for either consultation with school personnel for fidelity of an intervention or implementation themselves. The school psychologist can also play a significant role for PBIS within the preschool classroom by evaluation of progress monitoring and linking the information to data based decision making.

Recognition of the relationship between social competence and academic skills demonstrates the importance of evaluating the child as a whole. Through comprehensive evaluations, school psychologists are able to better identify and recognize the interplay between these two variables for students. Solely focusing on and assessing for academic concerns of a child may hinder the conceptualization and implementation for effective interventions. Osher et al. (2008) recognized if individuals within the school system only assess academic progress, it is all the team will focus on. Because of this, states such as Alaska and Illinois have focused efforts on evaluating and addressing the social-emotional needs of children as well. A failure to evaluate the child comprehensively may limit the types of interventions put in place since assessments are linked to preceding

interventions. This understanding is imperative when evaluating a child for special education through a problem solving meeting or a behavioral intervention plan within the third tier.

### **Conclusion**

This study was designed and conceptualized to better understand the personal and contextual factors that play a role in early literacy abilities for preschool aged children within an urban population. The results of this study show the importance of social competence as a factor that plays an important role in children's development of literacy skills. Additionally, the data supports the need to continue providing funding for services that go beyond an academic scope. Social competence has been identified in the past and continues to be supported as a prominent resilience factor. Specifically, a focus on enhancing the positive social competence behaviors, along with academic performance, may aid in the most success. The study also suggests the need for a better understanding of whether and how the parent involvement in home literacy activities impact on their child's literacy performance. Several limitations in the current study restrict the interpretation of the home literacy variables not being found to predict children's literacy performance. School psychologists and other educators are viewed as key individuals who can help the understanding of personal and contextual factors affecting academic and social-behavioral needs of young children, both at the individual and classroom level.

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## APPENDIX A: SOCIAL COMPETENCE PERFORMANCE CHECKLIST

### **Social Competence Performance Checklist Survey Subscales**

#### **Positive Behaviors (Examples)**

- Calms him or herself when upset
- Controls frustration to resolve a conflict or problem
- Participates appropriately in large group
- Interacts positively with peers
- Demonstrates understanding of concepts being taught
- Keeps focused on work or tasks

#### **Challenging Behaviors (Examples)**

- Pushes, kicks, hits others
- Talks out of turn
- Has anger outbursts
- Does not attend to work/activity
- Does not follow directions
- Appears sad or annoyed

## APPENDIX B: HOME LITERACY ENVIRONMENT QUESTIONNAIRE

### **Home Literacy Environment Survey Subscales**

#### **Parent Enrichment Activities (Examples)**

Read a book to your child at bed time.

Taken your child to visit a library

Taken your child to the museum, zoo, or other places in the community to learn special things

#### **Parental Dialogic Reading Practices (Examples)**

Point to and name pictures as you read

Point to letters and name them

Ask child what will happen next

Ask your child to explain what happened or why something happened

## CURRICULUM VITAE

**Leah Brittnacher, M.S.**

### EDUCATION

Ph.D.	<b>University of Wisconsin-Milwaukee</b> <b>Major:</b> School Psychology <b>Certificate:</b> Trauma Counseling APA/NASP- Accredited School Psychology Program	August 2014
M.S.	<b>University of Wisconsin-Milwaukee</b>	December 2011
B.A.	<b>University of Wisconsin- Milwaukee</b> <b>Major:</b> Psychology, Sociology <b>Minor:</b> Women's Studies <b>Certificate:</b> Children and Adolescents, Cultures and Communities	May 2009

### CLINICAL EXPERIENCE

- 09/13-Present **Boys Town, Nebraska Consortium of Professional Psychology  
(APA Accredited Internship)  
Behavioral Health Clinic**  
*Boys Town, NE*  
Supervisor: Lindsay Hauser, PsyD, LP & Kristen Abbondante, PhD, LP  
Responsibilities: Provide individual, group, and family therapy to children and adolescents; consult with teachers, primary care providers, psychiatrists, and other professionals; develop and implement treatment plans; conduct clinical and psychoeducational assessments with children and adolescents; conduct applied research.
- 08/12-05/13 **Rogers Memorial Hospital  
Child and Adolescent Day Treatment**  
*Brown Deer, WI*  
Supervisor: Kristine Kim, PsyD  
Responsibilities: Facilitate individual, group, and family therapy, conduct diagnostic interviews for treatment, collaborate with schools and multidisciplinary teams for improved mental health, and complete discharge planning to ensure continued mental health services.

- 05/11-08/12 **Family Options Counseling  
Mental Health Outpatient Clinic**  
*Wauwatosa, WI*  
Supervisor: Kimberly Young, PhD  
Responsibilities: Conduct outpatient assessments for youth with emotional and behavioral concerns, facilitate individual, group, and family therapy, complete diagnostic interviews, collaborate with multidisciplinary teams, and participate in individual and group supervision.
- 09/10-06/11 **Walt Whitman Elementary  
Milwaukee Public Schools**  
*Milwaukee, WI*  
Supervisor: Christina Monfre, EdS  
Responsibilities: Promote mental health services by conducting psycho-educational assessments, consult with teachers and parents, facilitate individual counseling services, implement individual and group interventions, complete ropes course activities with middle school students, contribute during I.E.P. meetings, and perform reviews and evaluations of ongoing interventions.
- 01/11-06/11 **Vincent High School  
Milwaukee Public Schools**  
*Milwaukee, WI*  
Supervisor: Edgar Jordan, PhD  
Responsibilities: Promote mental health services by conducting psycho-educational assessments, consult with teachers and parents, facilitate individual and group counseling services, perform reviews and evaluations of ongoing interventions, and collaborate with staff for the implementation for the school wide positive behavior improvement system.
- 01/10-05/10 **Milwaukee Public Schools**  
*Milwaukee, WI*  
Supervisor: Timothy Cleary, PhD  
Responsibilities: Administer and score curriculum-based assessments at local public elementary schools. Consult with teachers and school personnel for the development and implementation of relevant evidence based interventions for identified students.
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## SUPERVISION EXPERIENCE

- 08/11- 08/13 **Supervision of Research Assistants – EMERGE**  
**University of Wisconsin-Milwaukee**  
Responsibilities: Provide supervision to graduate level research assistants with training and administration of pre-literacy assessment measures, statistical analyses, and development of research materials.
- 01/12- 08/13 **Supervision of Research Assistants- RCT**  
**University of Wisconsin-Milwaukee**  
Responsibilities: Provide supervision to graduate level research assistants with training and administration of pre-literacy assessment measures.
- 09/11-12/11 **Supervision of Practicum Students**  
**University of Wisconsin-Milwaukee**  
Responsibilities: Provide individual and group supervision to master level graduate students during the planning, implementation, and evaluation phases for cognitive behavioral therapy projects.

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## RESEARCH EXPERIENCE

- 01/13- Present **Lead Investigator**  
 University of Wisconsin- Milwaukee  
Doctoral Dissertation: The Role of Parental, Individual, and Environmental Factors on Literacy Growth  
Chair: Karen Stoiber, PhD
- 08/08- 08/13 **Research Project Assistant**  
**Project EMERGE**  
 University of Wisconsin-Milwaukee  
Supervisor: Karen Stoiber, PhD  
Responsibilities: Administer literacy assessments to preschoolers, assist in the development and distribution of evidence based materials for a literacy curriculum, tutor children on a weekly basis (08-09), enter and analyze data through SPSS, train graduate students on measures and procedures, and discuss the significance of literacy to families while managing a library.

- 07/10-08/13 **Research Project Assistant**  
**RCT Study- Educare**  
 University of Wisconsin-Milwaukee & University of North Carolina- Chapel Hill  
Supervisor: Nancy File, PhD  
Responsibilities: Conduct literacy assessments for children aged one to three years, work collaboratively to aid in the development of the assessment procedures, consult with teachers about effective skills necessary for future success of children, interact with parents to collect information and provide resources to low income families, and collaborate with research executives for improved facilitation.
- 01/12-04/12 **Research Project Assistant**  
 University of Wisconsin- Milwaukee  
Supervisor: Carissa Marsh, PhD  
Responsibilities: Utilize functional behavioral assessment to develop and implement interventions, consult with teachers, and collect data to assist school psychology intern.
- 06/10-09/10 **Program Evaluator, Data Analyst**  
 PROPEL Study- Milwaukee Public Schools  
Supervisor: Karen Stoiber, PhD  
Responsibilities: Collect, analyze, and interpret educational data from school library media specialists and related propel staff members through the literacy grant project.
- 01/07-01/09 **Research Team Member**  
**Child Neurodevelopmental Lab**  
 University of Wisconsin, Milwaukee  
Supervisor: Bonita Klein-Tasman, PhD  
Responsibilities: Research Neurofibromatosis-1, Williams Syndrome, and other development disabilities, videotape assessments, score assessment measures, interact with clients during parent meetings, develop a measurement to evaluate an assessment item, revise research papers, administer the SIB-R to parents, analyze statistics through SPSS, enter information into databases, and administer the K-BIT II to children with WS.

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#### PUBLICATIONS AND PROFESSIONAL PRESENTATIONS

- Van Grinsven, L. & Krejci, R. (2013, February).** *The effects of the preschool environment on pre-literacy outcomes.* Poster session presented at the annual meeting of the National Association of School Psychologists, Seattle, WA.
- Krejci, R. & Van Grinsven, L. (2013, February).** *Impact of multiple years in an early reading first program on early literacy outcome score.* Poster session presented at the annual meeting of the National Association of School Psychologists, Seattle, WA.

- Hernandez, M., Bocanegra, J., **Van Grinsven, L.**, & Callan, G. (2012, February). *Examining the State of Diversity Research*. Poster session presented at the annual meeting of the National Association of School Psychologists, Philadelphia, PA.
- Drumm, H., & **Van Grinsven, L.** (2012, February). *The Impact of Social Competence on Pre-Literacy Skills*. Poster session presented at the annual meeting of the National Association of School Psychologists, Philadelphia, PA.
- Van Grinsven, L.**, Hernandez, M., Callan, G., & Stoiber, K. (2011, August). *The Impact of Small Learning Communities on Dropout Risk in Urban Youth*. Poster session presented at the annual meeting of the American Psychological Association, Washington D.C.
- Hernandez, M., **Van Grinsven, L.**, Callan, G., & Stoiber, K. (2011, August). *Predictors of Drop-Out Risk in African American Youth*. Poster session presented at the annual meeting of the American Psychological Association, Washington D. C.
- Stoiber, K., **Van Grinsven, L.** & Fenelon, M. (2011, February). *Promoting Early Literacy Practices in Low Income Minority Families*. Paper presented at the annual meeting of the National Association of School Psychologists, San Francisco, CA.
- Stoiber, K. C., Gettinger, M., **Van Grinsven, L.**, Hernandez, M., and Fenelon, M. (February, 2011). *Promoting Early Literacy Practices in Low Income Minority Families*. Paper presented at the National Association of School Psychologists. San Francisco, CA.
- Van Grinsven, L.**, Klein-Tasman, B. P., & Phillips, K. D. (2009, March). *Emotional control and pubertal stage in children with Williams Syndrome*. Poster session presented at the National Conference on Undergraduate Research, La Crosse, WI.
- Stoiber, K., Gettinger, M., Lesser, H., & **Van Grinsven, L.** (2009, February). *A response to intervention model for early literacy development among low-income children: Applying a tier-three intervention*. Poster session presented at the Wisconsin School Psychology Association Conference, Stevens Point, WI.

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#### COMMUNITY LEADERSHIP AND INVOLVEMENT

- 08/12-08/13 **National Association of School Psychologists (NASP) Student Representative**  
University of Wisconsin-Milwaukee
- 08/11-08/12 **Doctoral Student Representative**  
University of Wisconsin- Milwaukee

06/11-03/12 **School Psychology Student Association- Secretary**  
University of Wisconsin- Milwaukee

09/07-06/08 **Psi Chi- National Honor Society in Psychology- Secretary**  
University of Wisconsin-Milwaukee

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### CURRENT PROFESSIONAL AFFILIATIONS

12/09-Present American Psychological Association (APA), Graduate Student  
Affiliate

12/09-Present National Association of School Psychologists (NASP), Student  
Affiliate

09/08-Present UWM Multicultural Connections for School Psychologists  
(MCSP), Member

09/08-Present UWM School Psychology Student Association (SPSA), Member

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### TEACHING EXPERIENCE

01/06-08/09 **Primary Caregiver**

UWM Children's Center  
*Milwaukee, WI*

Supervisor: Mary Andres

Responsibilities: Promote development of a positive self-concept for children six weeks to eighth grade, encourage the development of self-help skills, aid in the development of language and self-expression, implement preschool and kindergarten curriculums, and complete continuing education directed towards children's well-being.

09/08-06/09 **Tutor**

America Reads  
*Milwaukee, WI*

Supervisor: Laurie Marks

Responsibilities: Develop and implement evidence based strategies for tutoring sessions to meet individual learning styles focusing upon struggling math, spelling, and reading subjects

- 09/08-11/08 **Assistant Teacher**  
 Saturday Academy  
 Milwaukee, WI  
Supervisor: Patricia Goeman  
Responsibilities: Prepare 6<sup>th</sup>-8<sup>th</sup> graders for the future by teaching mini courses in the subject areas of developing a portfolio, time management, and leadership skills; and provide these students' academic support through tutoring.
- 09/07-12/07 **Volunteer**  
 Alliance High School  
 Milwaukee, WI  
Supervisor: Tina Owen  
Responsibilities: Work with high school students to improve the school environment in order to provide a safe, student centered, and academically challenging atmosphere to meet the needs of all students: black, white, gay, straight, punk, gothic, disabled, and unique.
- 01/07-05/07 **Mentor**  
 Peer Mentoring Center  
 Milwaukee, WI  
Supervisor: Shana Stein  
Responsibilities: Tutor college students, promote campus involvement, and develop and lead programs for first year and international students to provide information and a sense of belonging in the university community.

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### ACADEMIC HONORS AND AWARDS

- 2013 **Dissertator Project Assistant- Graduate Assistantship**  
 University of Wisconsin- Milwaukee
- 2009-2012 **Project Assistant- Stipend Graduate Assistantships**  
 University of Wisconsin Milwaukee
- 2009 **AmeriCorps- M3C Fellowship Award**  
 University of Wisconsin-Milwaukee
- 2009 **Magna Cum Laude Honors**  
 University of Wisconsin-Milwaukee
- 2007-2009 **Golden Key**  
 University of Wisconsin-Milwaukee
- 2005-2009 **Dean's List**  
 University of Wisconsin-Milwaukee
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**REFERENCES**

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