Preschoolers' Social-Emotional Competency and Time Spent Outside of School

DISSERTATION

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Abstract

The literature has demonstrated that academic skills regress over the summer months when students are not in school, yet little is known about the effect of school breaks on non-academic skills. The following longitudinal study investigates teacher perceptions of how school breaks affect preschool children's social-emotional competencies. Learning rate results demonstrate students lose social-emotional skills and demonstrate increases in behavior concerns over summer break when they are not in school. Additionally, children who have attended preschool in the previous year demonstrate a smoother transition back after summer break as opposed to newly enrolled children. Implications for educators are discussed.

Dedication

This document is dedicated to my parents and siblings. To my parents, who first instilled within me a love of learning and who so generously provided me with every possible opportunity to do so. To my sister and brother, who inspire me with their beautiful spirits and who taught me so much about compassion and all of the different possible ways of learning.

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Fields of Study

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Chapter 1: Introduction

Educators have recently begun to recognize the importance of social-emotional learning and the relationship between social-emotional competence and important life outcomes such as academic achievement, positive social and behavioral outcomes, and mental health. There are many broad definitions of social-emotional learning and its components throughout the education and psychology literature base. Many terms are used fairly interchangeably within the research, including: social-emotional learning, social-emotional competence, social-emotional development, and emotional intelligence (EI). Social-emotional competence can be defined as the ability to recognize, understand, manage, integrate, and express one's emotions, thoughts, and feelings in order to adapt to and achieve tasks within the social world. Such tasks include establishing healthy relationships, making responsible decisions, and meeting the needs of one's self and others (adapted from Collaborative for Academic, Social, and Emotional Learning [CASEL], 2011; Elias et al., 1997; Payton et al., 2000; and Zins, Bloodworth, Weissberg, & Walberg, 2004).

Similar to the definition of social-emotional development, the components of social-emotional competence are also somewhat varied within the literature, however, researchers have reached a consensus on the five most common components, including: self-awareness, social/other awareness, responsible decision making, self-management, and relationship skills and management (CASEL, 2011; Castro-Olivo, 2010; Payton et

al., 2000; Zins et al., 2004). Researchers have also advocated for the following

components: social interaction skills and positive attitudes/values (Payton et al., 2000),

problem solving (Castro-Olivo, 2010), impulse control, working cooperatively, and care

for oneself and others (Elias et al., 1997). Goleman's firm, CASEL (2011) describes the

five key components of social-emotional competence, and defines each as the following:

> "Self-awareness: The ability to accurately recognize one's emotions and thoughts
> and their influence on behavior. This includes accurately assessing one's strengths
> and limitations and possessing a well-grounded sense of confidence and
> optimism; Self-management: The ability to regulate one's emotions, thoughts, and
> behaviors effectively in different situations. This includes managing stress,
> controlling impulses, motivating oneself, and setting and working toward
> achieving personal and academic goals; Social awareness: The ability to take the
> perspective of and empathize with others from diverse backgrounds and cultures,
> to understand social and ethical norms for behavior, and to recognize family,
> school, and community resources and supports; Relationship skills: The ability to
> establish and maintain healthy and rewarding relationships with diverse
> individuals and groups. This includes communicating clearly, listening actively,
> cooperating, resisting inappropriate social pressure, negotiating conflict
> constructively, and seeking and offering help when needed; Responsible decision-
> making: The ability to make constructive and respectful choices about personal
> behavior and social interactions based on consideration of ethical standards,
> safety concerns, social norms, the realistic evaluation of consequences of various
> actions, and the well-being of self and others."

The definitions of these five key components include other researchers additional

competencies, and are reflected in Goleman's (1995) original definition, thereby

establishing CASEL's (2011) component framework as the most comprehensive and

most widely accepted.

Researchers have established the positive benefits of possessing social-emotional

competencies. Social-emotional competency has been linked to positive academic,

social/peer, and mental health outcomes across the lifespan. Durlak, Weissberg,

Dymnicki, Taylor and Schellinger (2011) conducted a meta-analytic review of 213

school-based, social-emotional learning programs. Results of the study indicate that participants significantly improved in their academic performance, as measured by grades and standardized achievement tests. Further results indicate participants increased in their pro-social behaviors and reported enhanced positive attitudes. Participants also reported lower levels of emotional distress and engaged in fewer conduct problems than non-participants. In addition, Sklad, Diekstra, De Ritter, Ben, and Gravesteijn (2012) conducted a meta-analytic review of 75 school-based, social-emotional learning programs and found similar results. The researchers found program participants improved one-half of a standard deviation in academic achievement as compared to non-participants. These academic benefits persisted in the long-term follow-ups as well. Participants also improved upon their social skills, pro-social behavior, positive self-image, and had reduced antisocial behavior, as opposed to non-participants. These two studies have demonstrated the importance of social-emotional competencies to positive outcomes.

Furthermore, studies have demonstrated the long-term negative effects of low social-emotional competence, seen in adolescence and early adulthood. Long-term consequences include dropping out of school and increases in criminal behavior (Parker & Asher, 1987), low academic self-efficacy and belief that one's negative moods interfere with one's learning (Roeser, van der Wolf, & Strobel, 2001). Additionally, Dearing (2008) reported that social-emotional delays (along with language and cognitive delays) are associated with mental health problems across the lifespan. The importance of social-emotional skills cannot be understated.

Research has demonstrated that social-emotional skills and academic achievement are highly related. Students engage in social-emotional learning as well as academic learning in the classroom during in-school time. However, what happens to these skills during out-of-school time? Previous research has consistently demonstrated that student's academic skills regress over the summer months when the students are not in school (Alexander, Entwisle, & Olson, 2007; Allington & McGill-Franzen, 2003; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996; Downey, von Hippel, & Broh, 2004). In their meta-analysis of 39 studies, Cooper et al., (1996) determined that student's average achievement scores in the autumn were $1/10^{th}$ of a standard deviation below average scores for the spring before, which corresponds to one month's loss of academic learning. This learning loss is most frequently identified within the reading and mathematics subject areas. Potential short- and long-term effects of the summer learning gap have been identified. Experiencing the summer learning gap has been correlated with increased absenteeism, decreased academic achievement, decreased high school completion, and decreased likelihood of attending a four-year college (Alexander et al., 2007; Entwisle, Alexander, & Olson, 1997; Ready, 2010).

Furthermore, disadvantaged children, such as children living in poverty (Alexander, 1997; Alexander et al., 2007; Cooper et al., 1996; Downey et al., 2004; Downey, von Hippel, & Hughes, 2008; Entwisle & Alexander, 1992; Ready, 2010), as well as children with disabilities (Allinder & Eicher, 1994; Katsiyannis; 1991) appear to be impacted to a greater extent by out-of-school time as compared to their peers of higher socioeconomic status and typically-developing peers.

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While there are many studies that document the loss of academic skills over the summer months and the negative effects of this skill loss, especially for disadvantaged students, researchers have not yet focused on the impact of out-of-school time on student's social-emotional skills. This gap in the literature is surprising because the importance of social-emotional competencies as related to life outcomes has been well established throughout the literature. This signifies a critical need to examine social-emotional growth during the school year and the impact of out-of-school time on that growth.

Purpose of the Study

The purpose of this longitudinal, exploratory study is to investigate the ways in which social-emotional development in preschoolers is influenced by time spent outside of school. Preschool children are just beginning to acquire social-emotional skills, and the classroom is one of the main environments in which students are able to develop these competencies (Bagdi & Vacca, 2005, Durlak et al., 2011). The current study builds upon previous literature regarding the importance of social-emotional development and competencies. Specifically, this study addresses a gap in the literature, as researchers have not previously examined possible social-emotional deficits that occur as a result of time spent outside of school (e.g., summer). By focusing on social-emotional competencies, this study will extend the knowledge about the impact of time spent out of school on skills that are important to academic success. The data gathered from this study provides a foundation for future researchers who investigate non-academic skills that may deteriorate during out-of-school time. Furthermore, this research intends to support

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the importance of summer programming in both academics and social-emotional development, especially for disadvantaged youth, such as children from low-income families and children with disabilities. Awareness of the possibility for academic and social-emotional summer setback within the education domain could compel teachers, school psychologists, and other educators to provide extra behavioral and emotional supports for children as they re-adjust to school routines after out-of-school time. Educators can also provide this information to parents to prepare them for this adjustment.

Research Questions

    Research question 1. Is there a relationship between out-of-school time and preschoolers' social-emotional competencies, as measured by teacher ratings?

    Available literature on the summer setback phenomenon has only focused on academic outcomes. However, the literature base has also provided strong evidence for the relationship between social-emotional learning and academic achievement. Extrapolating from the academic summer setback literature and based on the evidence that demonstrates students learn social-emotional skills during in-school time as well as academic skills, one can expect the non-academic skills may also be affected by out-of-school time.

    Supposition 1. There is expected to be a relationship between out-of-school time and preschoolers' social-emotional competencies.

    Research question 1a. Do social-emotional skills decrease as a result of out-of-school time?

Out-of-school time poses many risk factors for disadvantaged children, such as access to unstructured time and non-educational activities (e.g., television watching). Furthermore, disadvantaged children also may not have the opportunities to interact with their peers on a regular basis during out-of-school time, as opposed to the regular exposure and interaction to peers that is facilitated during in-school time.

Supposition 1a. Social-emotional skills are expected to decrease as a result of out-of-school time.

Research question 1b. Does the length of the school break impact this effect?

This study measures social-emotional competencies before and after three school breaks (two summer and one winter breaks). These breaks vary in their out-of-school time length: summer is approximately 12 weeks and winter break is approximately two weeks.

Supposition 1b. It is expected that the decrease in social-emotional skills will be larger for the longer school break (summer) and will be smaller for the shorter school break (winter).

Research question two. Do demographic variables predict this change in social-emotional competence?

Demographic variables such as disability status, gender, age, and number of siblings in the home will be collected. Additionally, student's participation (or not) in formalized summer programming will be recorded. Past research has demonstrated that children with disabilities and male children tend to be at a higher risk for social-emotional deficits (Bender & Wall, 1994; Fantuzzo et al., 2007; Katsiyannis, 1991; Sprung, Froschl, & Gropper, 2010) than children without disabilities and female children.

Furthermore, participation in summer programming and having siblings in one's home furthers the amount of exposure the participants have to other children. Being around these other children could possibly increase the chances the participants have to engage in socialization and social-emotional learning during out-of-school time.

Supposition 2. Demographic variables and participation in summer programming will help to explain the change in social-emotional competence.

Research question three. How does the rate of growth in social-emotional competence during the school year differ from the social-emotional growth rates observed during out-of-school time (e.g., summer and winter breaks)?

The academic summer setback literature utilizes learning rates to compare children's school-year learning growth to their summer skill loss. This analysis has allowed researchers to determined that children lose about one month's ($1/10^{th}$ of a standard deviation) worth of learning during the summer months (Cooper et al., 1996). By calculating learning rates, context can be given to the social-emotional learning rates as well to determine the severity of skill loss. For example, if a student grows 30% over the school year and loses 5% over the summer, this has different implications than if the child loses 20%. Furthermore, considering the lack of research in this area, this analysis could provide a much-needed baseline for comparison for future studies.

Supposition 3. The social-emotional learning rate is expected to increase over the school year and decrease over out-of-school time (e.g., summer and winter breaks).

Chapter 2: Literature Review

This chapter aims to review the literature addressing social-emotional development across the lifespan and the importance of social-emotional competency as demonstrated through academic, social, and mental health outcomes. Additionally, this chapter will review the literature regarding the academic achievement summer gap and the connections between social-emotional competencies and academic achievement. These studies are the basis for which the current study's research questions are formulated from and reflect a deficit in the literature that justifies the need for the current study.

Social-Emotional Development and Competency

As previously discussed, there are currently many terms used throughout the literature for social-emotional learning. Petrides, Frederickson, and Furnham (2004) traced the origin of these terms and how they have evolved over time:

> "The distal roots of EI can be traced back to the concept of 'social intelligence' coined by E.L. Thorndike (1920) to refer to the ability to understand and manage people and to act wisely in human relations… although it was not until 1990 that the construct was introduced in its present form (Salovey & Mayer, 1990). EI was propelled into prominence by Goleman's (1995) best selling book…" (p. 277-278).

Goleman's (1995) book, *Emotional Intelligence* is the modern day starting point for the discussion of social-emotional learning and development. Goleman reviews previous definitions of social and emotional intelligence such as Howard Gardner's intra- and interpersonal intelligences, and Salovey and Mayer's five domains of emotional intelligence (p. 37-44). Goleman (1995) lists and defines these five domains: 1) Knowing one's emotions (i.e., self-awareness); 2) Managing emotions; 3) Motivating oneself; 4) Recognizing emotions in others; and 5) Handling relationships. It should be noted, while it is typically used in the current research as synonymous with social-emotional learning, the term 'emotional intelligence is a broader one, and as such, social-emotional competence is encompassed within this definition: "EI involves the ability to draw upon key personal… social… and emotional… attributes in order to adapt effectively to a given social context" (Humphrey, Curran, Morris, Farrell, & Woods, 2007, p. 241). Goleman (1995) differentiates between the definition of emotional intelligence and emotional intelligence (EI) competence, "while our emotional intelligence determines our potential for learning the fundamentals of self-mastery and the like, our emotional competence shows how much of that potential we have mastered in ways that translate into on-the-job capabilities (p. xv). Following his highly successful book, Goleman founded the Collaborative for Academic, Social, and Emotional Learning (CASEL), an organization that is currently partnered with National Association of School Psychologists (NASP) to promote the academic, social and emotional well-being of students across the country (Lazarus & Sulkowski, 2011). Other prominent researchers in this field include Maurice Elias and Joseph Zins. Their book, *Promoting Social and Emotional Learning, Guidelines for Educations* (Elias et al., 1997) is very influential in

the field, and has been heavily cited throughout the literature. These researchers have all provided various (yet similar) definitions of social-emotional learning and competence. Drawing on these definitions, social-emotional competence can be defined as the ability to recognize, understand, manage, integrate, and express one's emotions, thoughts, and feelings in order to adapt to and achieve tasks within the social world. Examples of such tasks include establishing healthy relationships, making responsible decisions, and meeting the needs of one's self and others.

Social-Emotional Development Across the Lifespan

While people achieve social-emotional skills at different points throughout their lives, Charles and Carstensen (2009) comment that the fundamental human needs for social interaction, belonging, and emotional connectedness remain stable across the lifespan. Denham (2007) provides a comprehensive review of emotional competence literature from preschool age to middle childhood, while providing support for the unification of social and emotional competencies. This section discusses how social-emotional competencies are learned and acquired throughout the lifespan, and how these skills appear differently at various ages.

Infancy to pre-kindergarten. Infants do not have a developed sense of self-awareness; they are completely dependent on their caregivers for emotional and social interaction, and survival. At this stage, infants demonstrate social-emotional competence by engaging in bonding and attachment with their primary caregivers. Research has demonstrated that this bond plays a crucial role in shaping their social-emotional development (Ainsworth & Wittig, 1969; Bowlby, 1969). Infants react to their caregiver's facial expressions and voice and show pleasure by smiling and laughing.

Infants cry to communicate with their caregivers to express their needs and emotions and to display distress. These pre-verbal behaviors serve as beginning stepping-stones for infant's social-emotional development.

Toddlers (12-24 months) are just beginning to gain awareness of self and to see themselves as separate from their caregivers and other people. While toddlers tend to engage in developmentally appropriate parallel play instead of playing *with* their peers, they do begin to take an interest in other toddlers (Zero to Three, 2010). Toddlers tend to have little control over their emotions, and have difficulty regulating them (e.g., temper tantrums, the 'terrible twos'). Their emotions and social interactions are egocentric and they tend not to be able to take the perspective of others.

By age three, preschoolers interact more with their peers, and engage in reciprocal play (Zero to Three, 2010). At the preschool stage, Denham (2007) has identified development-specific tasks that preschool children are expected to attempt to master, such as positive peer interaction, emotional regulation, conflict management, play coordination, and meeting the social expectations of others. Specific skills that assist in mastering these tasks include, "listening, cooperating, appropriate help seeking, joining another child or small group, and negotiating" (p. 2). Utilizing these skills to approach mastery the aforementioned tasks indicate competency in social-emotional skills at the toddlerhood level.

Childhood and adolescence. Social-emotional interactions with peers change drastically throughout childhood and adolescence. While still egocentric, youth at this phase begin to control their emotions and start to engage in perspective-taking and empathy development. However, as Denham (2007) reports, the main social goal at this

phase is to avoid embarrassment and procure social group acceptance. At this time the quantity of friendships tends to outweigh the depth or quality of them. Youth secure these goals by utilizing many tactics such as gossip, limited self-disclosure, teasing, and/or bullying. Even though children are beginning to develop empathy, this development is at odds with furthering their social standing and protecting themselves from social embarrassment. The acquisition of social-emotional skills can help adolescents navigate through this difficult time and assist them in making pro-social decisions for the good of themselves and their peers.

      Adulthood and late adulthood. Social-emotional abilities develop even further as adolescents and young adults continue to age. Carstensen (1992) conducted in-depth interviews with 50 adults and found that by age 30, social groups tend to narrow significantly (and purposefully) as compared to younger ages. This suggests that as people age, they invest their time and effort into fewer relationships; however, those relationships tend to be more intimate than casual. Charles and Carstensen (2009) present an excellent review of the social-emotional development and aging literature. The researchers discuss many aspects of one's social-emotional lives that change with adulthood including: narrowing social networks, increases in intimate and meaningful relationships, changing social roles, sensory and physical losses, increased predictability of frequently experienced emotions, and improved self-regulation. In addition, negative emotions such as anger and distress are less frequently experienced, while positive emotions tend to become the norm.

Not surprisingly, adults tend to report fewer social conflicts and tend to solve interpersonal problems more effectively than their younger counterparts. This supports the trend that social-emotional competence increases with age and experience.

Importance of Social-Emotional Competency and Life Outcomes

Social-emotional learning appears different at various life stages; however, possessing social-emotional competence is crucial for both short- and long-term positive life outcomes. Social-emotional competence has been associated with positive academic, social/behavioral, and mental health outcomes across the lifespan. While these outcomes are closely interrelated, (e.g., conduct behaviors and mental health issues such as depression can lead to a reduction in academic achievement) much of the research has addressed them as separate constructs. These associations will be discussed, along with various risk factors for social-emotional deficits and delays.

Academic achievement. The benefits of academic achievement and successful high school completion such as stable employment and better mental and physical health have been well documented (e.g., Lleras-Muney, 2005; Muller, 2002; United States Census Bureau, 2011). Countless governmental, non-profit, and professional organizations constantly advocate for ways to increase student's chances for academic success. Many factors are associated with academic achievement, and recently, researchers have focused on the importance of social-emotional learning and how these competencies lead to increased scholastic achievement levels.

***Preschool and early childhoo*d.** Fantuzzo et al. (2007) had teachers complete rating scales on 1,764 Head Start, low-income preschoolers to measure their emotional regulation and academic engagement in the classroom. The researchers found direct

predictive relationships between difficulties with emotional regulation and academic

disengagement with future academic risk at the start of kindergarten. The results

indicated that difficulty with social-emotional competencies early on in life could predict

negative early academic outcomes. Merrell and Bailey (2008) also studied young children

and followed 3,561 students from age four to age seven. The researchers found social-

emotional development to be significantly correlated with math and reading achievement

at all ages (four through seven), further lending support to relationship between social-

emotional competence and academic achievement. Rhoades, Warren, Domitrovich and

Greenberg (2011) furthered the literature examining the relationship between academic

achievement and social-emotional competence by also focusing on the role of attention

skills within this relationship. The researchers studied 341 low-income, Head Start

preschoolers over three years. Rhoades et al. (2011) used multiple measures to collect

data about the preschoolers' receptive vocabulary, academic competence, emotion

knowledge, and attention skills. Results indicated that preschoolers' emotional

knowledge was a significant predictor of academic achievement (letter-word

identification, pre-writing skills, and applied math problems). The researchers found

further evidence to suggest that more than 50 percent of the effect of social-emotional

competence and academic achievement could be explained by attention skills (after

controlling for demographic characteristics such as family socioeconomic status, age,

race, gender, and receptive vocabulary). This research is consistent with past studies that

demonstrate evidence of the connection between social-emotional competence and

academic achievement, but it also furthers the literature in that it investigates an

important moderating variable.

Future research should continue to investigate the effects of attention skills and other important competencies on the relationship between social-emotional learning and academic achievement.

Additional research with preschool populations has investigated the relationship between social-emotional skills and school readiness, both academically and socially. Research has demonstrated that, "children who enter kindergarten with more positive profiles of social-emotional competence have not only more success in developing positive attitudes about school and successful early adjustment to school, but also improved grades and achievement" (Denham, 2006, p. 59). Leerkes, Paradise, O'Brien, Calkins, and Lange (2008) studied 141 three-year-old children and found emotional understanding (being able to label emotions and describe why people experience emotions) was related to pre-academic performance (letter and word identification, applied math problems). Furthermore, the researchers found toddlers who demonstrated sufficient emotional control were significantly less likely to be rated by their caregivers as possessing social-emotional difficulties. Similarly, Denham (2007) reviewed emotional competence literature and found evidence supporting emotional regulation, emotional expressivity, and emotion knowledge as important skills related to preschooler and kindergartener's school readiness and early academic achievement.

Adolescence. Parker et al. (2004) compared 667 high school students' emotional intelligence[1] abilities (as measured by the *Emotional Quotient Inventory*) with their end of the year grade point averages. The researchers found student's overall emotional

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[1] As previously discussed, the term 'emotional intelligence' frequently appears in current research as synonymous with social-emotional learning. As such, some of the reviewed studies in this section utilize this terminology.

intelligence (EI) to be predictive of academic success. Components of EI measured

include: inter- and intrapersonal abilities, stress management, and adaptability.

Furthermore, when the students were divided into academic success groups (top 20

percent, middle 60 percent, bottom 20 percent) the researchers determined that the higher

the group the student was in, the higher the scores for EI components, further indicating a

strong association between academic success and emotional intelligence. Downey,

Mountstephen, Lloyd, Hansen, and Stough (2008) conducted a similar study with 290

Australian adolescents from grades seven through eleven. The results of this study

demonstrate higher levels of academic success were correlated with higher levels of

emotional intelligence, consistent with the results of Parker et al. (2004).

Further studies have demonstrated emotional intelligence to be an important

moderator variable. Petrides et al. (2004) studied the relationship between cognitive

ability and academic performance for 650 British high school students. The researchers

found that the student's self-perception of their social-emotional skills moderated the

relationship between cognitive ability and academic performance, especially for

individuals with lower IQs. Thus, if the students perceived themselves to have strong

social-emotional skills, they tended to have higher academic performance. However, this

moderator was only significant for certain subjects (e.g., English) and was not significant

for math or science. The researchers suggest that subjects such as English are more

affect-loaded and therefore require additional social-emotional interpretive skills as

opposed to subjects such as math and science that tend to not require explicit emotional

skills, however, the researchers acknowledge the need for additional research within this

area.

Another study found emotional intelligence to be a moderator of the relationship between self-efficacy and academic achievement (Adeyemo, 2007). The researcher studied 300 students (ages 16-30) and measured their academic self-efficacy and emotional intelligence and then compared these to the student's first semester academic performance. Adeyemo (2007) found self-efficacy to be a significant predictor of academic achievement, and found that emotional intelligence moderated this relationship. The researcher discussed how social-emotional skills can assist students in preventing academic stress and anxiety, which can impact one's academic self-efficacy. These studies continue to emphasize the importance of social-emotional skills and their relationship to academic achievement.

Criticism and response. The relationship between social-emotional skills and academic performance is not without criticism. Humphrey et al. (2007) presents a critical review of the research on emotional intelligence and academic achievement. Humphrey et al. (2007) claims previous research on this relationship is based on limited studies, "both in terms of number and methodological and analytical rigor of studies… and contradictory evidence base" (p. 243-244). The researchers then proceed to describe three such outdated studies, while ignoring many quality ones (as discussed above). The authors then go on to describe two contradictory studies "involving design and analysis procedures that are more appropriate" (p. 244) and conclude the need for further research in this area.

Durlak et al. (2011) appear to have answered this need. The researchers conducted a meta-analytic review of 213 school-based social-emotional learning programs. The analyzed programs included over 270,000 students in kindergarten

through twelfth grade. Programs were targeted at typically developing students (without learning or emotional disabilities) and all studies included a control group. This rigorous study also included analyses of potential moderators of program outcomes. As expected, significant moderators of study outcomes included design and implementation issues, whereas well-designed and well-implemented studies (based on the author's standards) did not present moderating effects. The researchers investigated six dependent variables: "social-emotional skills, attitudes towards self and others, pro-social behaviors, conduct problems, and academic performance" (p. 410). Results of the study indicate that participants in the social-emotional learning programs significantly improved in their academic performance, as measured by grades and standardized achievement tests (further findings are discussed in the relevant sections below).

The results of this study are consistent with another recent meta-analysis. Sklad et al. (2012) conducted a meta-analytic review of 75 school-based, social-emotional learning programs. All studies included in the analysis were conducted with the general school population, were published between 1995 and 2008, taught at least one social-emotional skill, and used a control or comparison group within its research design. The researchers compiled a list of seven outcome categories (88% of studies reported outcomes within these categories): social-emotional skills, positive self-image, antisocial behavior, pro-social behavior, substance abuse, mental health disorders (internalizing issues), and academic achievement. The researchers found program participants improved one-half of a standard deviation in academic achievement as compared to non-participants. These benefits persisted in the long-term follow-ups as well. Further study findings are discussed in the relevant sections below.

These meta-analytic studies represent the most recent and comprehensive studies and provide compelling evidence for the relationship between social-emotional skills and academic performance.

Social and behavioral. Social-emotional competence has been linked to positive behavioral and social outcomes for children. One component of social-emotional learning is forming and maintaining healthy social relationships with peers. The earlier this skill is developed, the better, as "successful independent interaction with agemates is a crucial predictor of later mental health and well-being, beginning during preschool, continuing during the grade school years when peer reputations solidify and thereafter" (Denham, 2007, p. 2). Furthermore, a well-known and often cited study from Parker and Asher (1987) demonstrates that children who have poor peer adjustment and negative relationships early on in life are more commonly associated with dropping out of school and engaging in criminal behavior. The researchers investigated three aspects of problematic peer relationships including: peer acceptance, aggressiveness, and shyness/withdrawal to see if they predict any of the following outcomes: dropping out of school, criminal behavior, and psychopathology. Parker and Asher (1987) reviewed existing literature that utilized both peer and teacher reports, and found clear support for low peer acceptance and aggressiveness being predictors of dropping out of school and criminal behavior. The researchers did not find conclusive support for shyness as a predictor, nor for psychopathology as an outcome.

Previous research has established the relationship between frequent school absences and the increased risk of dropping out of school (e.g., Ready, 2010). As such, examinations of social-emotional skills and school absences are important in predicting

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later school-based behavioral outcomes. Petrides et al. (2004) examined the relationship between trait emotional intelligence and school absences and suspensions/expulsions for high school students. Trait emotional intelligence is defined as one's self-perception of one's social-emotional abilities; that is, their abilities to recognize and process emotions in a social context. Hence, this study is unique as it focused on the student's perceptions of their abilities instead of the more common direct measurement of social-emotional abilities. The researchers found that students with low trait emotional intelligence were significantly more likely to have been suspended or expelled from school, and to have unexcused absences when compared to their high trait emotional intelligence peers. This study provides support for student's self-perceptions of social-emotional skills as a protective factor against truancy and school removal.

Humphrey et al. (2007) reviewed a multitude of studies focusing on emotional intelligence as a preventative and protective factor against risky behaviors. The researchers concluded that existing research is fairly straightforward, and emotional intelligence does indeed prevent risky behaviors in both the short and long term for children and adolescents, such as substance abuse and illegal drug use, delinquency, absences, and expulsions. Humphrey et al. (2007) also noted that long-term benefits of high levels of emotional intelligence for adults include better work performance. Results of Durlak et al. (2011) meta-analysis of school-based social-emotional learning programs demonstrated support for past researchers' claims that social-emotional competencies improve social and behavioral outcomes. The researchers found that participants of the social-emotional learning programs increased pro-social behaviors and engaged in fewer conduct problems than non-participants. Similarly, Sklad et al. (2012) found participants

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of social-emotional learning programs improved upon their social skills, pro-social behavior, and had reduced antisocial behavior, as opposed to non-participants. Unlike the controversy surrounding the relationship of social-emotional skills and academic achievement, current research appears to have reached a consensus on the positive effects of social-emotional competencies on pro-social and behavioral outcomes.

Mental health. An individual's mental health is closely tied to one's abilities as students to perform successfully at school, and in adulthood, at work. Similarly, one's emotional stability is a crucial feature of one's global ability to function in the social world. Social-emotional competencies are closely related to both short and long term mental-health benefits and consequences.

For young children, the ability to develop social-emotional competencies is very important. Several studies have demonstrated that social-emotional difficulties during early childhood can lead to various consequences later on in childhood such as developmental and psychopathological disorders (Wittmer, Doll, & Strain, 1996), clinically significant internalizing and externalizing symptoms and psychiatric disorders (Briggs-Gowan & Carter, 2008), and depressive symptoms (Meagher, Arnold, Doctoroff, Dobbs, & Fisher, 2009). Indeed, Greenberg et al. (2003) reports, "large percentages of American high school students [have] mental health difficulties" (p. 467).

Further studies have focused on the long-term negative effects of low social-emotional competence, seen in adolescence and early adulthood. Long-term complications include dropping out of school and increases in criminal behavior (Parker & Asher, 1987) and low academic self-efficacy and belief that one's negative moods interfere with one's learning (Roeser et al., 2001). Dearing (2008) reports that social-emotional delays (along with language and cognitive delays) can contribute to mental health problems across the lifespan.

Other researchers have focused on the positive effects of social-emotional competence. Denham (2006) reported that children with high social-emotional competence tend to have an easier time adjusting to school and have more positive attitudes about school. Similiarly, Durlak et al. (2011) found that student participants (grades K-12) in quality, school-based, social-emotional learning programs reported lower levels of emotional distress and enhanced positive attitudes. Sklad et al. (2012) demonstrated that participants in social-emotional learning programs improved upon their positive self-image when compared to non-participants. Furthermore, Humphrey et al. (2007) reviewed the literature pertaining to long-term preventative outcomes for adults and found that adults with high emotional intelligence experience less stress and have better general health and well being as opposed to those with low social-emotional competence. These consistent results demonstrate the importance of social-emotional competence on individual's mental health.

Risk Factors for Social-Emotional Deficits & Adversely Affected Populations

As previously discussed, the benefits of social-emotional learning for both short and long term outcomes are clear, and have been widely researched. However, some children do not thrive within the area of social emotional development. Researchers have investigated various factors that put children at risk for social-emotional delays, and the negative outcomes of such delays. Furthermore, certain populations appear to be more negatively affected by these risk factors; these connections are explored.

Past research has compiled a large list of risk factors that can lead to social-emotional deficits. Common risk factors include: low socioeconomic status, developmental delays, abuse/neglect/maltreatment, and unsafe community/neighborhood environment (Aviles, Anderson, & Davila, 2006; Bagdi & Vacca, 2005; Jensen, 2009; Peth-Pierce, 2000). Further factors that can influence social-emotional development include, "social opportunities, [the] contexts in which social interactions occur, and peer, familial, and cultural characteristics" (Brown & Conroy, 2011; p. 311). Knowledge of these risk factors and influences is an important first step in early identification, which in and of itself is a protective factor. Briggs-Gowan and Carter (2008) report, "at a time when evidence-based early intervention programs exist, [we] support routine screening to identify infant/toddler social-emotional/behavioral problems" (p. 961). Early screening and identification can lead to more effective interventions. Other identified protective factors include: resiliency, high cognitive ability, self-confidence/efficacy, stable home environment, peer friendships, and emotional support from caregivers (Margalit, 2004; Peth-Pierce, 2000).

Do the aforementioned risk factors affect certain populations differently? Research has attempted to answer this question by focusing on the social-emotional functioning of people with disabilities, English language learners, people of low-income, and male students. While the learning and development process may proceed fairly similarly for these populations as for mainstream children, these subsets of the population may be at a higher-risk for disruptions within the developmental process, putting them at a greater risk for social-emotional deficits.

Students with disabilities. A study by Bender and Wall (1994) reviewed existing literature on the social-emotional development of students with learning disabilities. The researchers found overwhelmingly negative attributes experienced by students with learning disabilities, including: low self-concept and perceived self-efficacy, external locus of control attributions, low motivation, increased anxiety, less social flexibility, high levels of loneliness, and a high risk of depression. Bryan, Burstein, and Ergul (2004) also reviewed literature on social-emotional development of students with learning disabilities. Consistent with Bender and Wall (1994), Bryan et al. (2004) found that the literature commonly cited students with learning disabilities as having lower self-concepts than their peers. However, the researchers make an important distinction: research has demonstrated a consistent low self-concept in regards to academics, however, the research on social-competence is varied due to personal and environmental factors. The research also demonstrated that students with learning disabilities are more likely to report experiencing negative emotions and are more likely to exhibit problem social behaviors such as aggression or disruption. While the researchers attribute these experiences to the presence of a disability, they fail to take into account environmental

risk factors. Brown and Conroy (2011) stress, "Whether difficulties in social-emotional competence are a result of established developmental disabilities…or are related to environmental circumstances (e.g., families living in poverty, maltreatment of children), or both, to maximize children's developmental potential, a critical need exists to prevent and ameliorate young children's social-emotional difficulties" (p. 311). Future research should take these environmental circumstances into consideration.

Irwin, Carter, & Briggs-Gowan (2002) investigated 28 toddlers, half of whom were identified as having an expressive language delay (the toddlers did not have receptive language delays). The other half of the children served as a control group. All toddlers were born full-term, were considered healthy, and lived with their parents. Both groups of toddlers matched for demographic variables. The researchers investigated what effect being a 'late-talker' had on the toddler's social-emotional competencies and behavior. Mothers of the toddlers completed questionnaire packets addressing (among other things) their child's social-emotional status. Results of the study indicated that toddlers in the late talking group (as compared to the control group) had fewer social-emotional competencies and were more at-risk for behavior problems. The toddlers with expressive language delay were "17 times more likely to display depression/withdrawal and deficits in social relatedness, compliance, and imitation/pretend play" (p. 1329). Children with expressive language delays have difficulty expressing their emotions through words and may result to more regressed forms of communication such as hitting, or other physical violence.

As demonstrated by this study, these replacement mechanisms result in negative mental health and behavioral issues for toddlers. The results of this study highlight the need for effective early intervention for toddlers with expressive language delays, in addition to further interventions for social-emotional learning.

English language learners. Past research has demonstrated that English language learners (ELL) face many challenges in their adjustment to academic and social life, and because of this, they may be at higher risk for social-emotional, behavioral, and academic problems (Albers, Hoffman, & Lundahl, 2009**;** Castro-Olivo, 2010; Todorova, Suarez-Orozco, & Suarez-Orozco, 2008). While much of the current research has focused on ELL student's academic adjustment, it appears that few researchers and educators have focused on the social-emotional needs of this population. Castro-Olivo, Preciado, Sanford, and Perry (2011) studied the relationship between 62 ELL students' social-emotional resiliency and their academic achievement. The researchers found that students who scored higher on social-emotional resiliency measures tended to be more highly correlated with successful academic achievement. Castro-Olivo et al. (2011) also argue for the need of schools and ELL programs to address not only the academic achievement of ELL students, but also their social, emotional, and mental health needs as well. The authors argue that America's school systems (especially secondary schools) are very socially complex and ELL students need additional attention and support from school staff to successfully navigate these challenges.

Low-income students. Research has demonstrated that low socioeconomic status (SES) furthers a student's risk for academic failure, behavior problems, and social-emotional difficulties (Dearing, 2008; Elias & Haynes, 2008; Jensen, 2009). Dearing (2008) provided a review of the literature regarding outcomes of children raised in low-income households. The author found evidence that places low-income children at higher risk than their middle and high socioeconomic status counterparts for cognitive, language, and social-emotional delays. Further evidence suggests that low-income children are at a greater risk for academic difficulties, however, this is moderated by family variables such as parent involvement and parent education.

In his book, *Teaching with Poverty in Mind*, Eric Jensen (2009) discusses how low-income students are more likely than their mid- and high-SES peers to experience emotional and social instability at home due to factors associated with poverty such as teen pregnancy, inadequate healthcare, chronic stressors and parental depression, that in turn can lead to inadequate bonding and care from caregivers. These risk factors may negatively influence a parent's ability to meet their children's social and emotional needs, including teaching children appropriate emotional regulation and responses. When these needs are not met, Jensen argues that this can cause delays in the child's social and emotional development, such as failing to learn healthy and appropriate emotional responses to everyday frustrations. These delays are commonly manifested at school: "children raised in poverty are more likely to display acting-out behaviors, impatience and impulsivity, gaps in politeness and social grace, a more limited range of behavioral responses, inappropriate emotional responses, [and] less empathy for others' misfortunes" (p. 19). Additionally, Jensen summarizes the research on chronic stress:

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"[Chronic stress] is linked to over 50 percent of all absences, impairs attention and concentration, reduces cognition, creativity, and memory, diminishes social skills and social judgment, reduces motivation, determination, and effort, [and] increases the likelihood of depression" (p. 26). Jensen also advocates for teachers of low-income students to be aware of these unique social-emotional challenges that these children often face. Jensen's book not only helps to bring awareness to these challenges but also provides specific action steps for schools and teachers alike.

Additional research has focused on protective factors such as student-teacher relationships that may help to mitigate the risk factors faced by low-income students. Elias and Haynes (2008) investigated low-income, urban, third grade students to determine the relationship between their social-emotional competences and their year-end academic achievement. The researchers found that student's social-emotional competencies and perceived teacher support were significant factors in the student's end of the year academic achievement scores. The authors discuss how social-emotional competence and perceived teacher support can be viewed as protective factors for low-income youth, furthering the argument for the need for effective social-emotional learning within the schools. Murray and Malmgren (2005) also found teacher support (in the form of positive student teacher relationships) as a protective factor for low-income students. The researchers recruited eight urban high school teachers and 48 students to participate in the study. Students in the intervention group were assigned to one teacher. The intervention consisted of weekly meetings between the teacher and student, increased teacher praise and twice-monthly positive calls home to student's parents. The researchers found that these positive teacher-student relationships increased student's

academic performance. The difference in social-emotional adjustment and functioning increased from pre- to post-intervention (and in relation to the control group), and while this increase demonstrated a positive trend, it was not statistically significant. The authors discuss that the timeframe for the intervention (five months) may have been too short to find significant results, however, the positive trend demonstrates promise. Further research on teacher relationships with low SES children and their association with social-emotional functioning is warranted.

Male students. Other researchers have focused on the effects of gender on social-emotional development and have found that boys are more at-risk for problem behaviors and social-emotional deficits than girls, as evidenced by higher rates of preschool expulsion and disruptive behavior among boys (Fantuzzo et al., 2007; Sprung et al., 2010). One explanation offered by Sprung et al. (2010) is the stereotypical expectations as to how boys should engage in relationships. Boys are taught to be tough, stoic, and un-emotional. According to the researchers, boys crave relational attachments with peers and teachers, but change these relationships to fit around social stereotypes. For instance, a young boy may respect and look up to his teacher, but in order to appear 'cool' to his peers, he may act out or disrupt the class, because he believes this is what boys are expected to do. Unfortunately, youth in situations such as this tend to become stuck in a cycle: the more they act out, the more the teacher expects this of them, and the more they may fulfill this negative expectation.

Protective factors such as open communication and discussion of gender stereotypes as well as positive teacher-student relationships may enhance young boys' social-emotional learning and abilities, and may decrease these problem behaviors. Sprung et al. (2010) also advocates for teacher education and relational teaching styles to support boys' social-emotional and academic learning.

How Social-Emotional Learning is Addressed in the Schools

The importance of social-emotional learning and the consequences of the absence of these skills have been well documented in the literature, as previously discussed. Furthermore, professional organizations such as NASP have directly contacted their members to become involved in advocacy efforts to support social-emotional learning in the schools (National Association of School Psychologists, 2013). More and more commonly, social-emotional learning is taking place within school systems. Many resources have been written for educators on how to implement social-emotional teaching within the academic curriculum (e.g., Cohen, 2001; Elias & Arnold, 2006; Elias, Arnold, & Hussey, 2003; Elias et al., 1997). Educators themselves are advocating for the inclusion of a social-emotional curriculum. Civic Enterprises (2013) conducted a study for CASEL and surveyed, interviewed, and conducted focus groups with a nationally representative sample of 605 teachers on the state of social-emotional education within their schools. Results indicated that only 44% of teachers reported social-emotional skills were being taught on a school-wide basis, while 93% of teachers believe it is 'very important' to teach social-emotional competencies within the school setting. Furthermore, 95% of the teachers surveyed believe social-emotional skills can be taught, and 97% believe teaching these skills will benefit all students (not simply at-risk ones).

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Effective school-based programs. As previously discussed, Durlak et al. (2011) conducted a meta-analytic review of 213 school-based social-emotional learning programs and found that participants in the social-emotional learning programs significantly improved in their academic performance, social-emotional skills, positive attitudes, and pro-social behavior. Sklad et al. (2012) achieved similar results with their meta-analysis: participants demonstrated an increase in social skills, positive self-image, pro-social behavior, academic achievement, and a reduction in antisocial behavior. Additionally, while the researchers found a small effect size on improvement mental health and substance abuse, long-term follow ups showed significant improvement rates in substance abuse and increased academic achievement. These results demonstrate the ability of school-based social-emotional programs to achieve positive preventative and compensatory benefits for students.

While the meta-analytic reviews (Durlak et al., 2011; Skald et al., 2012) reported promising findings, it is important to highlight characteristics of some unique individual studies on school-based social-emotional learning programs. Merrell (2010) discusses the success of the Oregon Resiliency Project (launched in 2001), which includes the Strong Kids social-emotional learning programs. The Strong Kids program is divided up into five sections based on development and grade (Pre-K; K-2; 3-5; 6-8; and 9-12). Researchers have conducted several studies based on the Strong Kids programs. While each study has found some significant positive effect of the program, the most common key findings among the studies include increases in students' knowledge of healthy social-emotional behavior and reductions in self-reported internalizing problem symptoms (p. 64). Furthermore, Castro-Olivo (2006) found the program to be effective

with ELL students. As previously discussed, this group is at significant risk for social-emotional difficulties. While the researchers call for further validation of the program, these initial positive results point towards the Strong Kids program as being a promising, school-based, social-emotional learning program.

E'guya Dilworth, Mokrue, and Elias (2002) investigated another social-emotional learning program. This program was unique in that it was video-based. The program utilized video vignettes, group activities and classroom cheers to enhance elementary student's social-emotional competencies. Specific targeted skills include group planning abilities, social problem solving, appreciation of diversity, and teamwork (p. 331). The researchers implemented the video intervention with 147 students (56 students did not receive the intervention and served as comparison peers). Results indicated this program was successful at reducing problem behaviors and increasing social skills among the participants. The use of video in this intervention, and other technology (such as iPads) in future interventions may serve as a means to create buy-in from students and enhance their program experience. While these individual studies and meta-analytic reviews demonstrate the effectiveness of school-based, social-emotional learning programs, the question remains – what are the components of these programs that contribute to their effectiveness?

Specific recommendations for programs and lessons. As a whole, Bagdi and Vacca, (2005) recommend social-emotional services be provided within a systems framework that includes promotion, prevention, and intervention. Promotion includes spreading the word about the benefits of social-emotional competence, and the importance of early identification and intervention. Prevention speaks to being cognizant

of risk factors and vulnerable populations and intervention is an evidence-based way to serve those at-risk. This approach is consistent with additional research by Hemmeter, Ostrosky, and Fox (2006). These researchers advocate for this three-pronged approach as well, and discuss current evidence-based programs at the universal, small group, and individual-targeted levels of intervention.

Regarding these programs, Zins et al. (2004) provides one of the most comprehensive recommendations of essential program characteristics. The researchers report that quality social-emotional learning programs: are carefully planned, theory and research based, teach social-emotional learning skills that are applicable to daily life, address affective and social dimensions of learning, leads to coordinated, integrated, and unified programming that is linked to academic outcomes, addresses key implementation factors to support effective social-emotional learning and development, involves family and community partnerships, and the design of the program includes continuous improvement, outcome evaluation, and dissemination components (p. 198-199). Payton et al. (2000) reports similar features of quality programs and adds the following components: programs should promote effective teaching strategies, infuse social-emotional learning across subject areas, have high quality lesson plans, have school-wide coordination, and provide adequate teacher training and technical support (p. 181). Furthermore, Goleman (1995) provides recommends for specific lessons within these programs: the programs should include lessons that teach emotional skills such as identifying and expressing feelings, cognitive skills such as self-talk and interpreting social cues, and both verbal and nonverbal behavioral skills (p. 301). Finally, Brown and Conroy (2011) discuss specific strategies used by educators that have been deemed

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effective in the literature for enhancing pro-social interaction among children. These

strategies include a combination of the following: reinforcers, instructions, prompts,

models, rehearsal, feedback, and discussions (p. 312).

Durlak et al. (2011) provides a strategy to quickly evaluate the quality of social-

emotional programs. The authors promote the SAFE acronym; educators should be able

to answer 'yes' to the following questions: Does the program use a connected and

coordinated set of activities to achieve their objectives relative to skill development?

(Sequenced); Does the program use active forms of learning to help youth learn new

skills? (Active); Does the program have at least one component devoted to developing

personal or social skills? (Focused); and Does the program target specific social-

emotional learning skills rather than targeting skills or positive development in general

terms? (Explicit) (p. 410). Sklad et al. (2012) sums up the recommendations, "the safest

selection seems to be to use programs that have manuals and for which implementation

integrity has been reported positively in effect studies" (p. 905). Educators that follow

these recommendations should have a good chance of selecting a social-emotional

learning program that will be successful and provide benefits for their students.

Role of the School Psychologist

School psychologists are in an excellent position to become involved in

supporting social-emotional learning and competence within their schools, both with

school staff and students. NASP (2013) urges school psychologists to become involved

in social-emotional learning also by advocating its importance to legislatures. Past

research has demonstrated the importance of early identification of social-emotional

difficulties among children (e.g., Bagdi & Vacca, 2005; Briggs-Gowan & Carter, 2008).

School psychologists are knowledgeable about at-risk populations and recognize the value of early identification and intervention and can be frontrunners in this process for at-risk children. Denham (2006) provides a review of reliable and valid measures able to be used for identifying young children at risk for social-emotional deficits. Furthermore, once these children are identified, school psychologists can implement evidence-based interventions to improve student's social-emotional competencies.

On a school-wide basis, school psychologists can assist in the creation of a positive school climate. Haynes (2002) discusses the importance of interventions at the systems-level to change problematic school structures to become more child-centered, and reflects, "mental health and support service providers, such as psychologists and social workers, make optimal school change agents within the ecological approach because their professional training gives them the background and skills" (p. 113). Furthermore, school psychologists can use these skills to instruct others. Aviles et al. (2006) suggests the importance of in-service trainings and workshops for teachers to support student's social-emotional needs. School psychologists have the knowledge and experience to host these training sessions. Overall, school psychologists have many skills that make them well suited for the role of promoting social-emotional learning within their school districts.

Summer Learning Gap

Researchers in the fields of education, psychology, and sociology have established the well-known existence of an academic summer learning gap. The school break during winter vacation has also been implicated in the research. While academic decline during out-of-school time appears to affect any student who does not continue to

engage in academic learning during school breaks (Afterschool Alliance, 2008), research has focused on the more significant impacts of this achievement gap on disadvantaged students, especially those in loving poverty (Alexander, 1997; Alexander et al., 2007; Cooper et al., 1996; Downey et al., 2004; Downey et al., 2008; Entwisle & Alexander, 1992; Ready, 2010). This section seeks to review the literature on the academic learning gap during school breaks, including the short- and long-term consequences of this gap for students. Reasons for why disadvantaged individuals are disproportionately impacted will also be discussed. Furthermore, while there is strong evidence available for the academic learning gap, less is known about social-emotional learning and out-of-school time, as minimal research has been conducted in this area. The connections between social-emotional learning and academic achievement will also be explored along with recommendations and remedies for this learning gap.

Academics: General Findings

The academic summer learning gap has been described in many ways: summer setback, summer slide, summer learning loss… etc. All of these terms serve to describe the same phenomenon – learning rates appears to slow, stop, or, in many cases, even regress during the summer months when school is not in session. The reasons for these patterns have been investigated by researchers for decades, and continue to be a popular topic in education.

While earlier studies have examined summer learning (Hayes & Grether, 1969; White, 1906), Heyns' (1978) study is regarded as a seminal study with a focus on separating the school's role from external influences on the summer learning gap, such as socioeconomic status. Heyns (1978) tracked 2978 sixth and seventh grade students in 42

Atlanta public schools over two academic years and the summer in between to study the effects of summer learning. Heyns focused primarily on word knowledge as her measure of achievement (as measured by a standardized achievement test). Heyns measured student's mean word knowledge grade equivalent gains over the school years and summer and then compared these gains by race and socioeconomic status (SES).

For the total sample, students made an average positive gain of .62 during the school year, and an average loss of -.01 during summer. Caucasian students gained .84 during school and .24 during summer, whereas African American students gained .51 during school and lost -.12 during summer, depicting the achievement gap between races. Heyns then further separated her data by income status. Low SES Caucasian students gained .65 during the school year and .07 during the summer compared to low SES African American students who gained .42 during the school year and lost -.28 during the summer. High SES students of both races made similar gains during the summer months (.22 to .29), indicating that in this study, socioeconomic status was more influential than race on the summer reading gap.

Many important conclusions can be drawn from this first expansive study into the summer setback phenomenon. First, children from all races and socioeconomic status' demonstrated slower rates of learning during the summer months than during in-school months, providing evidence for the existence of the summer learning gap. Next, children from high SES families (of all ethnic backgrounds) consistently made higher gains during the summer months than their low SES counterparts. For African American students, only those in the highest SES category showed positive gains during out-of-school time. All other income categories were associated with losses during the summer months.

These early results indicate family socioeconomic status (a prominent non-school factor), has a considerable impact on student's out-of-school learning experiences. Walberg (1984) calculated that the average 18 year old has spent only 13 percent of his or her waking hours in school. Therefore, youth spent the vast majority of their time in diverse non-school environments, highlighting the importance of these non-school factors and their influence on the lives of children and adolescents.

One of the most comprehensive and frequently cited reviews of the summer learning gap literature is a narrative and meta-analytic review conducted by Cooper et al. (1996). The researchers examined the results from 39 studies (26 studies before 1975 and 14 studies from 1975-1996, including Heyns, 1978). Results from the analyses of the 26 early studies suggest that researchers focused on multiple subject matters including mathematics, reading, spelling, language, and other subjects, such as science and social studies. Not surprisingly, the most commonly studied areas of achievement were reading and math. For these early studies, all pre- and post-summer comparisons focusing on math skills, and all studies focusing on spelling skills demonstrated some significant loss of skills. Reading studies results were less conclusive, in fact, 10 of 17 studies demonstrated a gain in skills over the summer months. Studies that focused on language and other subjects were also less conclusive.

While these results demonstrated an apparent loss of skills in math and spelling, other subjects such as reading were not as obvious. This may be due to the fact that parents may be more likely to encourage reading activities over the summer as opposed to other academic activities, as summer reading is commonly advocated for by schools and communities. Also, home and community environments may provide more natural

opportunities for reading practice than math practice (Cooper et al., 1996). For instance, it is easy for a child to pick up a book within one's house and start reading, however, math practice may require additional adult prompting such as asking the child to add up a grocery bill at the store. Furthermore, research has demonstrated that voluntary reading of books over the summer months can serve as a protective factor against reading skill loss (White & Kim, 2008). These rationales may help to clarify the differences within these study results.

Cooper et al. (1996) then examined 14 studies conducted after 1975, through meta-analysis. Across these studies the researchers identified 66 samples, and of these, students in 28 samples were classified as low socioeconomic status (SES information was not gathered in 7 samples). The researchers examined the overall effect of summer vacation on student's academic achievement with both weighted and un-weighted data for sample size and SES. Un-weighted data demonstrated about a loss of about one month's worth of in-school learning. Weighted data showed a gain in skills over the summer months, however, the researchers attributed this to a study with an extremely large sample size, with uncharacteristically positive results, thus, when weighting by sample size this study had more of an effect on the mean. Taking this into account, Cooper et al. (1996) found the overall effect of summer on achievement to be equivalent to about one month's learning loss. Average achievement scores in the autumn were $1/10^{th}$ of a standard deviation below average scores for the spring before (again, corresponding to one month's loss).

Borman, Benson & Overman (2005) found the exact same result in their study on reading achievement: average reading achievement scores in the autumn were 1/10th of a standard deviation below average scores for the spring before, providing consistency for Cooper et al. (1996) finding.

Cooper et al. (1996) also examined summer break's effects on specific subject areas. The researchers found a greater effect size (greater skill loss) for math subject areas when compared to reading and language subject areas. The data also revealed that students were much more likely to make gains in the areas of reading and language than mathematics. These results are consistent with the findings of the earlier 26 studies, before 1975, thus demonstrating the consistent effect of the summer achievement gap across decades and subject matter.

The researchers examined the following variables to see if they had any influence on the overall effect of summer break and within math and reading subjects: type of report (published versus unpublished), length of time interval between spring and autumn achievement testing, family socioeconomic status (SES), gender, race, and grade level. The following variables had no significant effect: type of report, gender, and race. The length of the summer break was associated with both greater gains and greater losses in both math and reading. Cooper et al. (1996) explain this result by positing that during the longer summers, children may be more likely to have supplemental instruction (leading to gains) whereas during shorter summers, children may be less likely to receive instruction (leading to losses). Regarding family SES, both low and high SES students appeared to decline in math achievement equally, whereas students from low SES backgrounds demonstrated steeper declines in reading achievement compared to their

middle and high SES counterparts (some of whom even made gains). Again, this result is consistent with past research (Heyns, 1978) that highlights the important effects of socioeconomic status on the summer learning gap. The general consensus from these influential early works (Cooper et al., 1996; Heyns, 1978) is that the summer achievement gap has and continues to be seen across all students, and multiple subjects. In the following sections, the literature focusing on the effects of summer vacation on specific areas of academic achievement will be briefly reviewed.

Reading and language. Most of the studies conducted on the summer learning gap have focused on the academic areas of reading and language. In their meta-analytic review, Cooper et al. (1996) found that the majority of the studies they reviewed focused on reading outcomes, and these studies had larger sample sizes than studies focusing on other academic subjects. Research on the summer learning gap for reading has consistently demonstrated a pre- and post-summer reading achievement gap, one that is especially higher for children from low socioeconomic backgrounds (Alexander et al., 2007; Borman et al., 2005; Cooper et al., 1996; Entwisle et al.,1997; Hayes & Grether, 1969; Ready, 2010).

Helf, Konrad, and Algozzine (2008) followed 151 students in kindergarten through second grade, the majority of whom were at-risk for reading failure and classified as low socioeconomic status. The researchers measured reading achievement in the spring and the fall with the *DIBELS* assessment. Comparisons of these assessments revealed no evidence of reading achievement loss over the summer months. In fact, students appeared to gain skills in many areas. A more recent study has demonstrated support for a gain in skills over the summer months (see Slates, Alexander, Entwisle, &

Olson, 2012). Helf et al. (2008) explains the discrepancies in their findings as compared to previous research: this study focuses on very young children and beginning reading skills, whereas previous research has focused more on later elementary and middle school students, and measures of reading comprehension.

A more recent study also focused on young children and early reading skills. Skibbe, Grimm, Bowles, and Morrison (2012) analyzed the summer reading achievement gap for participants in preschool through second grade. Their results, consistent with past studies, found that the children had more literacy growth during in-school months as compared to summer months. The researchers focused on four areas of beginning reading skills, including decoding, comprehension, phonological awareness, and vocabulary (as measured by the *Woodcock Johnson Tests of Achievement – Third Edition*). The researchers noticed a pattern of literacy growth: slow in preschool, rapid in kindergarten and first grade, and then slow again in second grade, which is consistent with past studies of children's early learning. However, it is important to mention that the median household income for the participants in this sample was $115,000, indicating a high socioeconomic status. The sampling differences among these studies and previous ones may contribute to these inconsistent findings, highlighting the need for future research to continue to focus on these populations and variables that have not been studied as frequently.

Mathematics. While the majority of the summer learning gap research has focused on decline of reading skills, a review of past studies has found that math skill loss over the summer tends to be more common and more severe than reading loss (Cooper et al., 1996). Multiple studies have demonstrated the decline of math skills over

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the summer (Allinder, Fuchs, Fuchs, & Hamlett, 1992; Allinder & Fuchs, 1994; Entwisle & Alexander, 1992), however, these studies varied in their results. For instance, Allinder et al. (1992) found a decline in math achievement for students in fourth and fifth grade, but not in second or third grade, while Entwisle and Alexander (1992) found a decline of math skills in first graders.

As mentioned in the reading summer learning gap literature, some researchers found evidence of math skill gains over the summer. Slates et al. (2012) examined data from the Beginning Baltimore School study and found a small subset of children classified as low-income whom made gains in math (and reading) over the summer months (the theories and implications surrounding these results are discussed in more detail in the Impact on Disadvantaged Students section, below). Furthermore, while Allinder and Fuchs (1994) demonstrated an overall mean math performance decrease from pre- to post- winter break this decrease was not statistically significant. Furthermore, the researchers discovered that students who had a negative performance trend pre-break actually increased their performance post-break. Thus, the existing research on the summer learning gap for math skills is somewhat sparse and contradictory, further highlighting the need for additional research in this area.

Additional academic areas. Allinder et al. (1992) also examined the effect of summer break on spelling skills. The researchers found that second and third grade students' spelling skills declined significantly, whereas these skills did not decline in fourth and fifth grade. These differences may be attributed to the ability to practice these skills (e.g., older students may engage in more writing activities thus, applying their spelling knowledge). Of the 39 studies reviewed by Cooper et al. (1996), Allinder et al.

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(1992) was the only study that focused on an academic area in addition to reading and math after 1975. Cooper et al. (1996) reviewed eight earlier studies (ranging from the years 1928-1969) that demonstrated summer losses in spelling, and one study that demonstrated summer loss in history/geography (five confirmed gains). The lack of research on the summer learning gap for other academic subjects points to the current political and educational climate that is focused on the importance of reading and mathematics. Additional research is needed within other academic areas to determine if the pattern of summer learning loss is currently affecting subjects other than reading and math.

Short- and Long-Term Consequences

The short-term consequences of the summer achievement gap are fairly straightforward. As children stay stagnant or lose previously learned ground during the summer months, this places them at a disadvantage once they return to school in the fall. Educators must spend valuable time and resources to help these children 'catch-up' to the level they need to be at in order to progress during the current school year. Not only does this process place extra strain on teachers, the students also may feel the pressure to 'measure up'. Knowing that one is not at the expected level of academic achievement can in turn become a source of disappointment, causing children to de-value their skills and become less involved in school. With lower levels of self-efficacy regarding their academic skills, children oftentimes engage in school or schoolwork avoidance. These feelings of insufficiency and their related behaviors can perpetuate negative behaviors such as decreased work completion and chronic absenteeism, ultimately affecting their academic performance (Howard & Anderson, 1978; Ramos-Sanchez & Nichols, 2007;

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Wigfield & Guthrie, 1997). Furthermore, Ready (2010) demonstrated that increased

absenteeism further worsens the effects of poverty on academic achievement, therefore

placing these at-risk students within a negative cycle oftentimes resulting in academic

failure.

While these short-term consequences of the summer achievement gap are

certainly of concern, researchers have begun to trace the long-term consequences as well.

Alexander et al. (2007) examined data from the Baltimore Beginning School Study that

followed students from first grade through age twenty-two. The researchers compared

reading comprehension test scores from grades first through ninth for students classified

as low, mid and high socioeconomic status (SES). They found a 48.5 point gap between

the high and low SES children, with the low SES children 'gaining' negative 1.90 points

whereas their high SES counterparts gained 46.58 points over these summers. These

summer gains and losses resulted in low and high SES students being at very different

levels of academic achievement at the start of high school, a discrepancy of significant

consequence for life outcomes, as discussed below.

Previous research has demonstrated that achievement scores at the beginning of

high school predict later success such as high school completion and college attendance

(Entwisle et al., 1997). Alexander et al. (2007) found that these early high school

achievement differences were associated with high school outcomes such as taking

college preparatory classes (High SES = 62%; Low SES = 13%), dropping out of high

school (at age 22 still having no high school certification such as GED; High SES = 3%;

Low SES = 33%), and four year college attendance (High SES = 60%; Low SES = 7%).

Therefore, while these inequities are traced back to ninth grade academic standing, these

early academic standings can be attributed to student's early summer learning experiences. As previous research has demonstrated, these early summer learning experiences are mainly a product of out-of-school factors such as poverty (Cooper et al., 1996; Downey et al., 2004; Downey et al., 2008) that continue to contribute to the patterns of education inequity.

Schools as a Protective Factor

While the research clearly demonstrates that academic progress during the summer can serve to remedy the academic achievement gap between students, researchers have also focused on how in-school time affects the summer gap. Even early research, such as Heyns' (1978) seminal study demonstrated that "irrespective of socioeconomic background, schooling seems to boost learning" (p. 47). Current research is consistent with this idea of schooling as a protective factor.

Entwisle and Alexander (1992) analyzed data from the Beginning School Study in Baltimore. The researchers focused on student's mathematics performance on a standardized achievement test from the beginning of first grade through the fall of their third grade year. In order to control for school climate, the researchers limited their sample to students who stayed in the same school over the two years. This subset sample was found to be almost identical to the original sample in terms of the average mathematics test scores. The sample included both Caucasian and African American students. Forty-three percent of the Caucasian students and 90% of the African American students were classified as low-income, based on eligibility for free and reduced lunch at school. At the beginning of first grade, both groups of students had identical verbal comprehension scores, and their math performance was very close as well. Over the next

two years, however, Caucasian students demonstrated significantly higher scores than their African American counterparts, resulting in an average 14-point difference at the start of third grade. The researchers discovered that students classified as high socioeconomic status (SES) made gains during the summers whereas low SES students lost points. Interestingly, the student's mathematical gains during in-school times were also significantly associated with the student's family's income status. High SES children gained less ground during the school year than low SES status students. This result indicates that in-school time is very valuable for students in poverty, and actually helps to decrease the gap in achievement that is created when school is not in session (Entwisle & Alexander, 1992).

The results of this study are consistent with Alexander's (1997) review. Alexander (1997) argues that during the summer months, higher SES students continue to make significant achievement gains while low SES students either remain stagnant or lose previous gains they made during the school year. However, during the school year, Alexander (1997) consistently found that the low SES students were 'keeping close pace' with their more privileged counterparts. Alexander (1997) reports, "Schools do compensate partially for such [SES] resource differences… and this makes a meaningful, measurable difference in the lives of disadvantaged children" (p. 16). Therefore, in-school time serves as an invaluable resource, especially for children in poverty.

More recent seasonal comparison research has found support for the in-school months as a protective factor against the growth of learning inequalities. Downey et al. (2004) explains that even though students of different SES attend schools of different qualities and resource levels, these schools still are able to serve as 'equalizers' because

the "variation in school environment is smaller than the variation in non-school environments" (p. 613). Simply put, while student's non-school environments vary greatly due to multiple factors including poverty, resources and accessibility to those resources, schools all have the common goal of advancing the achievement of the children they serve, therefore, playing a more stable role in the child's life.

Downey et al. (2004) expanded upon previous research (e.g., Heyns, 1978; Entwisle & Alexander 1992) by examining nationally representative data from the *Early Childhood Longitudinal Study – Kindergarten* (ECLS-K) in the areas of both reading and mathematics. By focusing on kindergarten students, the researchers were able to examine existing inequalities right at the start of formal schooling as opposed to previous studies that focused on later grades. Results from the analysis of this more robust data set were consistent with findings from previous studies (Alexander, 1997; Entwisle & Alexander, 1992; Heyns, 1978) that support the theory that schools help to reduce socioeconomic status inequalities during the in-school months.

Downey et al. (2008) continued to focus on the impact of schooling and its relation to the summer achievement gap. The researchers compared schools labeled as 'failing' (with low achievement levels) to 'successful' schools with higher achievement levels. Downey et al. (2008) found that while these schools may have lower levels of achievement overall, the students were still learning at an acceptable rate, and indeed, were gaining much more ground during the school year, than over the summer months. The results of this study are consistent with the aforementioned studies that focus on the positive impact of in-school time on the phenomenon of the summer achievement gap.

Parenting and Family Protective Factors

Many studies examined the importance of parent involvement with respect to preventing summer achievement gaps. Borman et al. (2005) emphasizes the need for parental support, "to counteract the summer achievement slide, our results suggest that children need both the structured learning opportunities and resources offered through a formal school-based setting and the commitment of parents to make sure that they attend and get the most out of the program" (p. 149). Cooper et al. (1996) emphasized the importance of providing specific opportunities to practice academic skills such as math and spelling, as these skills are less likely to be spontaneously practiced (unlike leisure reading) and therefore, may be more susceptible to summer loss.

Slates et al. (2012) examined within-family social capital characteristics that contributed to academic gains over the summer for low-income children. The researchers found that inconsistent with prior research, some of the low SES children in the study did not exhibit summer setback in math or reading. The researchers compared these children who made gains to their peers who did evidence declines in academic performance, and found significant differences among family and parental factors. For children who made gains in reading, their parents were more likely to take their child to the library over the summer, check out books from the library, read to their children for longer periods of time (when compared to other low SES parents), check their child's homework, and have higher expectations for academic achievement during the school year.

The only difference between the children who gained math skills over the summer and their counterparts is that the children who gained math skills attended significantly more days of kindergarten than their peers. This result further highlights the importance of school attendance, which is consistent with previous findings (Borman et al., 2005; Ready, 2010).

Additional Out-of-School-Time Findings

While the majority of the studies on the out-of-school achievement gap have focused on summer break, there are some notable studies that have focused on other time periods as well. Allinder and Fuchs (1994) analyzed the effects of a three-week winter break on the math performance of students with ($n = 84$) and without ($n = 44$) disabilities. Socioeconomic status data was not collected. This novel study appears to be the first to look at the effect of a shorter school break on student's performance. Student's math performance was measured by curriculum based measurement (CBM) progress monitoring, which was collected one to two times weekly before and after winter break. The researchers analyzed the effect of winter break on both the level of performance (pre- and post-break) and the trend of the students' progress (pre- and post-break). The researchers found that students without disabilities performed at a higher level after winter break, whereas students with disabilities performed at about the same level as pre-break. While these results were significant, neither type of student showed a decline in their level of performance from pre- to post- winter break. The second analysis demonstrated that students who were making gains before winter break declined in their performance trends after break, however, students who had a negative performance trend pre-break actually increased their performance post-break. While not large enough to be

statistically significant, the researchers did find that for all students in the study, the

overall mean mathematic performance decreased from pre- to post-break. This suggests

that while overall math performance decreased over winter break, the three-week time

period might not have been long enough to show a large enough decrease in scores to be

statistically significant. It would have been beneficial if the researchers looked at

summer break as well, to see if the effect intensified with the longer out-of-school period.

Another study compared year-round schools to typical nine-month schools to

investigate what happens to summer learning in these settings (von Hippel, 2007). The

researcher utilized nationally representative data from the *Early Childhood Longitudinal*

Study – Kindergarten (ECLS-K) to compare 27 year-round schools with 965 typical nine-

month schools. Thirty-five percent of the typical schools had students on free or reduced

lunch while 50% of the year-round schools had children on free or reduced lunch.

Analyses indicated that students in the year-round schools learned at a faster pace during

the summer months than students in traditional schools. However, children in traditional

schools learn at a faster pace during the rest of the school year than their year-round

counterparts. The researcher evaluated these learning rates over a balanced, 12-month

period and found that the rates of learning in year-round and traditional schools were

about the same. von Hippel (2007) effectively argues that these results are consistent

with previous research (Downey et al., 2004; Downey et al., 2008; Entwisle &

Alexander, 1992) that demonstrates the summer achievement gap results from

disadvantages in student's non-school environments, mainly poverty.

The Impact on Disadvantaged Students

Organizations such as Afterschool Alliance (2008) argue that all children are at risk for experiencing academic learning losses if they do not participate in learning activities during school breaks. While research has supported that in general, children learn more during the academic months than the summer months (e.g., Alexander, 1997; Downey et al., 2004, Downey et al., 2008; Entwisle & Alexander, 1992; Skibbe et al., 2012), it has been demonstrated that diverse individuals, such as English language learners (ELL), students with disabilities, and especially students living in poverty are more significantly affected by these academic learning gaps during school breaks than their counterparts. The majority of this research has focused on students living in poverty, however recent research has illuminated this issue for students with disabilities and English language learners as well.

Students with disabilities. Children with disabilities are already considered at-risk with regards to academic learning and out-of-school time may increase this risk. In her influential article, Katsiyannis (1991) discussed relevant court cases that support her assertion that children with disabilities are at greater risk than their typically developing peers to show academic regression over long school breaks, such as summer vacation. Allinder and Eicher (1994) found support for this theory. They monitored 75 students with mild disabilities pre- and post-summer break in the subjects of reading and math. The researchers found that the students declined in their CBM scores from pre- to post-summer break. Tilley, Cox, and Staybrook (as cited in Zipperer, 2011) also found that children with moderate to severe disabilities are more severely affected by summer setback than children with mild disabilities or without disabilities.

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Not all studies demonstrate this regression, however. Allinder and Fuchs (1994) monitored students with and without disabilities pre- and post-winter break. The researchers found that students without disabilities performed at a higher level after winter break, whereas students with disabilities performed at about the same level as pre-break. Neither type of student showed a decline in their level of performance from pre- to post- winter break, however, students without disabilities continued to progress during out-of-school time, whereas children with disabilities stagnated. Students with disabilities may experience additional challenges over school breaks. Zipperer (2011) examined the non-academic consequences of school breaks, as "the productive, predictable routine of school is replaced by a tremendous quantity of unstructured time. This can be disorienting, frustrating, or lonely for a child with special needs" (p. 28). Thus, research demonstrates that students with disabilities may be more susceptible to the negative effects of the summer learning gap.

English language learners. Scheffner, Hammer, Lawrence, and Miccio (2008) followed 83 bilingual (Spanish and English) Head Start preschoolers over a two-year period. The researchers found that the preschoolers' scores on the *Tests of Early Language Development-3* increased during their first year of Head Start, but significantly declined over the summer (4 months) when school was not in session. Their scores did recover, however, within their second year of Head Start. Interestingly, for the children who did not experience gains during the school year, it was observed that they had higher scores after the summer months. However, this may point to the maturation of these students, instead of suggesting the summer months were beneficial for their language development – however, these relationships were not examined.

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O'Brien (1999) compared reading comprehension scores over three years for Latino ELL students and their Caucasian, English-only peers. O'Brien found that the achievement gap between these two groups widened over the three observed summers. It was also noted that many of the ELL students were of low socioeconomic status (SES). This may place ELL students even more at-risk than their English speaking low SES peers. Additional research is needed to examine the full effects of the summer learning gap for this vulnerable population.

Low-income students. To recap, much of the research on the summer learning gap has illuminated the impact of the summer achievement gap on students of low socioeconomic status (SES). Many researchers have identified poverty as a vital non-school factor that is a main contributor and risk factor to the summer learning gap (Alexander, 1997; Cooper et al., 1996; Downey et al., 2004; Downey et al., 2008; von Hippel, 2007).

Hart and Risley (1995) conducted a well-known study that demonstrated that by the age of three, there is a 30-million vocabulary word gap between low and high SES children. The researchers also found that low SES children tended to gain new vocabulary words more slowly than high SES children. A recent study found similar results as early as 18 months. Fernald, Marchman and Weislder (2013) followed 48 infants from 18 to 24 months and identified significant differences between low and high-SES infant's vocabulary and language processing skills, present at 18 months of age.

Low-SES infants had about 150 words less in their vocabulary than their high-SES counterparts and at 24 months the low-SES infants were 6 months behind their high-SES peers in processing efficiency skills, as related to language development. These studies illustrate that before they even begin formal schooling, low SES children are already at a stark verbal disadvantage compared to their high-SES peers.

On a positive note, once these children do begin school, research has shown that low SES children may actually be learning at a faster rate than their high SES peers (Alexander, 1997; Entwisle & Alexander, 1992; Ready, 2010; Zvoch, 2009). However, these vulnerable children may also be at a greater risk for losing this knowledge. Zvoch (2009) found that low SES, full-day kindergarteners gained literacy skills at a faster rate than high SES, half-day kindergarteners, however, full-day kindergarteners (low SES) experienced summer set-back while the half-day kindergarteners (high SES) skills remained intact.

Furthermore, factors associated with low SES such as chronic absenteeism can widen the academic achievement gap between low and high SES students. Other risk factors, such as violence, homelessness, and hunger are further challenges faced by many children in poverty and can be magnified over school breaks (McDonald, 2013). However, research has shown that family protective factors such as parent involvement and supervision in academic work (Slates et al., 2012) and school attendance encouragement (Borman et al., 2005) can serve to offset some of the risk factors and disadvantages attributed to living in poverty.

Additionally, low SES students with positive attendance rates tend to learn at a faster rate and gain more skills than their high SES counterparts, especially in the early grades (Ready, 2010). Awareness and utilization of these protective factors can serve to benefit students living in poverty.

Connections between the Academic and Social-Emotional Learning Gaps

While decades of research have focused on the academic summer learning gap, few studies have ventured to study the possibility of a social-emotional learning (SEL) gap. This is an important area to examine, as social-emotional competencies have been linked to positive academic, social/peer, and mental health outcomes across the lifespan (Becker & Luthar, 2002; Brown & Conroy, 2011; Durlak et al., 2011; Goleman, 1995; Merrell & Bailey, 2008). While the benefits of SEL have been well documented, inclusion of social-emotional learning in the academic curriculum is a relatively new phenomenon (CASEL, 2011). Given this status, it is not surprising that researchers have yet to investigate the possibility of a SEL summer gap. However, many connections can be made between the academic learning gap and the possibility for a social-emotional learning gap, stressing the need for research in this area.

Students do not learn in a vacuum; their social and emotional lives are very well interconnected with their academic lives. In fact, researchers continue to advocate for social emotional learning to have an increased presence within the academic classroom (CASEL, 2011; Durlak et al., 2011). Research has demonstrated students who attend schools with quality social emotional learning (SEL) programs in place are more likely to have higher grades and higher achievement test scores.

Quality, school-based SEL programs have been associated with an 11-percentile point gain in academic achievement (Durlak et al., 2011). Thus, having social-emotional skills appears to serve as a protective factor for children at-risk for academic difficulties.

Researchers have identified four social-emotional factors associated with student's academic performance: motivation to learn, teacher support/expectations, peer values, and mental health (Becker & Luthar, 2002). Students who have intrinsic motivation, teachers with high expectations, peers who value education and achievement, and students who are in good mental health tend to achieve academically at higher levels. Social-emotional learning is a positive tool that educators can implement within their schools and communities to help at-risk children. Having awareness of the interconnectedness of social-emotional skills and academic achievement is the first step.

What happens to children who do not possess sufficient social-emotional competencies? Research has demonstrated life outcomes similar to those associated with poor academic achievement, and, as previously discussed – social-emotional skills and academic achievement are closely linked. When students experience poor academic achievement, or a deficiency in their academic skills as compared to their peers, they may be likely to de-value their skills and abilities. Viewing one's academic skills in this negative light may increase the likelihood of the student engaging in negative behaviors such as schoolwork avoidance and disengagement, and absenteeism (Howard & Anderson, 1978; Ramos-Sanchez & Nichols, 2007; Roeser et al., 2001; Wigfield & Guthrie, 1997). These behaviors, especially chronic absenteeism can trap students within a negative cycle, placing them at an increased risk for academic skills loss and dropping out (Ready, 2010). These negative internalizing attributions may also be expressed

through externalizing behaviors such as aggression towards peers. Further research has shown that social-emotional delays can result in, "reduced earnings, involvement in crime, and mental health problems across the life span" (Dearing, 2008, p. 324). However, possession of social-emotional skills has been shown to be associated with preventing dropout, bullying, violence and other risky behaviors (CASEL, 2011), further indicating the importance of social-emotional learning for youth.

Out-of-school time and risk factors. Children and adolescents spend about two-thirds of their lives in non-school environments (Hofferth & Sandberg, 2001), thus highlighting the importance of investigating how this time is spent, and to what affect this time has on the social-emotional and academic development of youth. While the connection between out-of-school time and the academic summer learning gap has been well documented, there are many reasons as to why school breaks could possibly lead to a social-emotional learning gap as well.

School breaks can be associated with unsupervised and unstructured time, especially for students of lower socioeconomic status (Carnegie Corporation of New York, 1992; Marshall et al., 1997). This is an extreme change in environment from the structured, disciplined school day. With unstructured time, students are less likely to participate in learning activities, and may more likely to participate in solitary activities such as watching television (Hornik, 1981) or risky behaviors, such as drug or sex experimentation (Carnegie Corporation of New York, 1992).

Furthermore, school breaks may provide less of an opportunity for students to interact with their peers and community. Peer interaction is an important component in learning social-emotional skills. Carnegie Corporation of New York (1992) provides a

list of critical experiences that youth need for their intellectual, social, and emotional development: "Opportunities to socialize with peers and adults, opportunities to develop skills that are relevant now and in the future, opportunities to contribute to the community, opportunities to belong to a valued group, and opportunities to feel competent" (p. 11). Children and adolescents living in poverty may find it difficult to experience these opportunities.

Chin and Phillips (2004) conducted a study to investigate differences in summer experiences and opportunities for children, based on their socioeconomic status (SES). The researchers surveyed middle school children about their summer activities (from both middle and low SES). Results indicated that middle SES children had highly structured summers complete with camps, vacations, lessons, and educational activities such as leisure reading. The researchers attributed these opportunities to the following resources: "financial, parental time, parental knowledge, and a relatively safe environment" (p. 193). In contrast, children of low SES experienced summers with much less organization and less breath of activities. The researchers found that while the parents intentions and focus were for their children to have summers that more closely resembled that of the middle SES group, the low SES group did not have access to the same type of resources as their middle SES counterparts. Results from this study highlight the differences in the quality, quantity, and accessibility of summer activities across social classes.

Thus, due to differential access to resources, impoverished youth may have even more difficulty connecting with their peers in-person over school breaks. They may also have less opportunity to participate in extracurricular activities that promote social-

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emotional learning such as sports teams, due to financial difficulties. Without the opportunity to practice social skills in person with their peers, some children may regress in their social-emotional competencies. Research has demonstrated that mothers of low SES children report less externalizing behavior problems for children who are cared for with other youth (e.g., daycare) during out-of-school hours, and report higher rates of externalizing behaviors for children in unsupervised, solitary care. The researchers reported no such differences for middle or high SES children, indicating that low SES children may be more at risk for externalizing behaviors in these situations (Marshall et al., 1997). However, students who participate in structured activities such as playing sports, reading for pleasure, or participating in social activities are associated with higher achievement and fewer behavior problems (Hofferth & Sandberg, 2001; Jordan & Murray Nettles, 2000).

Children with disabilities are also at risk for losing social-emotional skills over school breaks, as they are not provided with the opportunity to interact with their peers in a social manner as frequently as when they are in school (Zipperer, 2011). Practicing social and behavioral skills with peers is a common instructional goal for children with disabilities. Peer-isolated school breaks may not provide these opportunities, which may cause students with disabilities to regress in these skills.

Furthermore, the transition back to the classroom after school breaks may prove to be difficult for at-risk youth. Common anecdotes from teachers have revealed that students experience difficulty transitioning back to the structured routine at school (particularly if one's home life is unstructured, or unpredictable) after weekend breaks – and these adjustment issues tend to intensify after longer out-of-school periods such as

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winter break. While there are many risk factors associated with school breaks that can make the social-emotional and academic learning gaps a reality, further research needs to be conducted to verify the existence of a social-emotional learning summer gap.

Recommendations and Remedies

Researchers have investigated hundreds of after school, summer school, and other out-of-school time programs targeted at increasing both student's academic achievement and social-emotional learning. Research focusing on academic achievement was much more common than social-emotional learning, and within the research on academic achievement, studies targeting reading were more common than math studies.

Academic programs. Lauer et al. (2006) conducted a meta-analytic review of 35 out-of-school time academic programs (both after school and summer) focusing on both math and reading skills. All studies were conducted after 1985, in the United State, and delivered to students in grades kindergarten through twelfth. The researchers found an overall small, positive effect for the programs on children's academic abilities, indicating out-of-school time programs can have positive effects on at-risk student's mathematic and reading achievement. Interestingly, the researchers found that for the math interventions, having a social component (such as partnering with a peer) was a significant moderator and was associated with higher achievement scores (this was not the case for reading programs). For reading programs, tutoring (as a type of instruction) was a very strong and significant moderator of success. The programs that had reading tutoring (which occurred only in after-school programs) demonstrated higher achievement scores than those without reading tutoring.

Additional recent studies have focused on the effectiveness of reading programs. Allington et al. (2010) conducted an experiment with first and second grade students enrolled in 17 high-poverty elementary schools. For three consecutive school years the researchers allowed students in the treatment group to select and receive 12 books of their choice to keep over summer vacation. Students in the control group did not receive books. When the researchers examined the student's state mandated reading assessments, they found significantly higher scores for the students in the treatment group, limiting the effect of summer reading setback. Self-report surveys also demonstrated that students in the treatment group voluntarily read more books than their control group counterparts (Allington et al., 2010). This finding is consistent with past research that indicates voluntary reading of books over the summer months can serve as a protective factor against reading skill loss (White & Kim, 2008). Furthermore, one study found that reading four to five books over the summer had a large enough potential effect to prevent summer reading setback among elementary school students (Kim, 2004). The same study reported that the easier it was for the students to access books, the more books they read, indicating the importance of resource accessibility. Further studies focused on younger students (pre-kindergarten) and found positive literacy gains with five to six week summer literacy programs (Edmonds, O'Donoghue, Spano, & Algozzine, 2009; Graham, McNamara, & Van Lankveld, 2010).

Social-emotional programs. Durlak, Weissberg, and Pachan (2010) conducted a meta-analysis on the effectiveness of 68 after-school programs targeted at enhancing student's personal and social skills. Results of the meta-analysis indicated the reviewed programs had a statistically significant positive impact on students. Results indicated

increases in self-perception, pro-social behaviors, and school bonding. The programs also appeared to have a positive influence on student's grades and achievement test scores (participants had on average 12-points higher than control group students). Results also indicated a decrease in reported problem behaviors.

However, there is a significant aspect of this study that may have resulted in biased results. The researchers noted that over half of the reviewed studies were dissertations or unpublished reports. Since these studies have not been peer-reviewed it is unknown the level of rigor and acceptability of statistical design and methods these studies utilized. While the researchers provide a strategy to quickly evaluate the quality of social-emotional programs (e.g., fulfill the SAFE acronym, as previously discussed), the results of this study should be evaluated with caution. While this study is a promising start, further, more comprehensive research is needed on out-of-school time social-emotional programs and their benefits.

Role of the school psychologist. School psychologists are in an excellent position to support both the academic and social-emotional learning of students year round, and to counteract the effects of the summer gap. The first step in this process is being aware of these out-of-school time gaps and risk factors, especially for at-risk students. School psychologists can promote the awareness of these gaps within their school districts and communities. They also have a wide breadth of knowledge and abilities to counteract these gaps. School psychologists can assemble resources for parents and children to distribute at the end of the school year such as summer math and reading practice packets.

Furthermore, school psychologists play an important role in encouraging attendance during in-school months, especially with parents of younger children, and with the adolescents themselves at the middle and high school level.

McDonald (2013) provides suggestions for how school psychologists can support at-risk students impacted by school breaks: continue to provide compensatory academic and social-emotional interventions and provide families with access to community resources and agencies, such as community library access information. Alexander (1997) argues that schools are "part of the solution" (p. 16) to the summer achievement gap, and school psychologists are perfectly placed within the school system to raise awareness of this issue and to support real and direct change.

The Present Study

The social-emotional literature base has demonstrated the importance of developing social-emotional competencies and that these skills are crucial to positive outcomes across the life span such as mental health, social and behavioral health, and academic achievement. Research has also demonstrated that disadvantaged populations are at a higher risk for social-emotional deficits. Similarly, research has consistently shown that disadvantaged students are more likely to experience summer setback, (i.e., the loss of academic skills during out-of-school time) than their non-disadvantaged peers. While the academic summer setback phenomenon has been thoroughly examined in the literature, researchers have not yet examined if students lose social-emotional skills as well during out-of-school-time.

This exploratory study investigates the possibility of a summer setback for social-emotional skills with preschool students. Specifically, this study addresses the following research questions: Is there a relationship between out-of-school time and preschoolers' social-emotional competencies, as measured by teacher ratings? Do social-emotional skills decrease as a result of out-of-school time? Does the length of the school break impact this effect? Do demographic variables predict this change in social-emotional competence? How does the rate of growth in social-emotional competence during the school year differ from the growth rates observed during out-of-school time (e.g., summer and winter breaks)?

Chapter 3: Methodology

Research Design and Procedure

Overview

The design of this study is exploratory in nature, as there have been no known studies examining the impact of out-of-school time on student's social-emotional skills. This study intends to build upon the academic summer setback literature. As such, this study is a longitudinal, pre-experimental, one-group pretest-posttest design (Campbell & Stanley, 1963). The treatment in this study is out-of-school time (i.e., school breaks), thus the treatment is naturally occurring, and not under the control of the experimenter. In this naturally occurring treatment condition, students are not receiving classroom-based instruction on social-emotional skills. There are a total of six observation points in the study. The figure below demonstrates the design of the study.

Figure 1. Details of study design with O = observation time point at which the teachers complete a DECA-P2 scale. O_1 = May 2013, O_2 = September 2013, O_3 = December 2013, O_4 = January 2014, O_5 = May 2014, O_6 = September 2014.

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To account for possible differences in summer experiences, the researcher collected data regarding the participant's summer activities and participation (or lack thereof) in formal summer programming (e.g., daycare center with structured curriculum, summer camp).

The weaknesses of this design are noted in the *Validity* section. To compensate for some of these weaknesses, a mixed methods design was used. Teachers participated in focus groups at the beginning of the 2014-2015 school year (O_6) and after winter break (O_4) to provide more in-depth details about their student's transitions back to school after out-of-school time. Evidence from informal conversations with teachers suggests they see a negative social-emotional and behavioral change in their students after long school breaks. The focus groups served to expand upon these conversations and observations. The focus groups may provide valuable information about the practical significance of changes the teachers perceive and how those changes impact student's learning.

Study Procedure and Data Collection

The researcher contacted the Child Development Council of Franklin County's Head Start and received a letter of approval for the research project and was randomly assigned to five Head Start centers. Three of these five centers agreed to participate. Next, the researcher contacted the Devereux Center for Resilient Children to obtain permission and access to the web-based E-DECA 2.0 system. This information was then submitted along with the Institutional Review Board (IRB) application. This application was approved in May 2013. An amendment to the application that allowed for additional participation recruitment and extended the project end date to September 2014 was approved in October 2013. A continuing review application was approved in March 2014. Next, the researcher contacted the assigned Head Start center coordinators and met

with the classroom teachers to explain the project. Folders containing parent permission forms and pre-summer surveys were sent home to the parents of the Head Start children. Once permission forms were obtained, Head Start teachers were asked to complete a pre-summer (time point O_1), social-emotional rating scale: the Devereux Early Childhood Assessment for Preschoolers – Second Edition (DECA-P2, see *Instrumentation* for further discussion). Teachers were provided, via email, a unique user name and password to access the E-DECA 2.0 system to complete this rating scale, online. When the teachers logged into the website, they were able to complete a rating scale for each child in their classroom (for whom parental permission was obtained). The scale takes about 5-10 minutes to complete, per child.

Next, the teachers were asked to access the website and complete the same rating scale again for each of these children, as a post-summer measure, within the first weeks of school (September 2013; time point O_2). The DECA-P2 manual states, "changes in a child's *T*-scores over time can also be evaluated when a period of at least 4 weeks between the ratings has elapsed" (LeBuffe & Naglieri, 2012). Summer break is typically 12 weeks; therefore, this pre- and post-test time period clearly meets this criterion. In order to also assess these patterns during a shorter school break, teachers were also asked to complete the same scale for each child before winter break (December 2013; time point O_3) and after winter break (January 2014; time point O_4). While the length of a typical winter break (two weeks) falls short of this recommended time guideline for pre- and post-tests, it was anticipated that this data would be valuable in tracking the student's social-emotional growth over the school year and for its use in the learning rates analysis.

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Additionally, the center coordinator or case manager at each site provided the researcher with pertinent demographic data (e.g., gender, number of siblings, disability status) for each student participant.

A parent/guardian of the child was asked to complete the brief Summer Parent Survey at the end of the 2012-2013 school year (May 2013; time point O_1) to assess how the child would be cared for during the summer and what activities were planned for the child to engage in while out of school. Parents were asked to complete the same survey at the beginning of the 2013-2014 school year (September 2013; time point O_2) which asked how the child was actually cared for during the summer months and what activities the child engaged in most frequently.

The first round of participant recruitment occurred in May 2013. Due to the low number of participants that initially signed up for the study (n = 34), a second round of recruitment was initiated in September 2013. For this second sample of participants, teachers were asked to complete the rating scales at the following time points: within the first week of school (September 2013; time point O_2), before winter break (December 2013; time point O_3), after winter break (January 2014; time point O_4), before summer break (May 2014; time point O_5) and after summer break (September 2014; time point O_6). Parents of the second round of participants were also asked to complete the Summer Parent Surveys pre- and post-summer 2014 as well. Additionally, after winter break (January 2014; time point O_4) and at the beginning of the 2014-2015 school year (September 2014; time point O_6), teachers were asked to participate in focus groups to provide more in-depth details about their student's transitions back to school after out-of-school time.

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As participant recruitment was on-going from May 2013 through November 2013, data collection for both rounds of participants occurred simultaneously. Additionally, some participants dropped out or aged out of the study. None of the participants received a teacher rating at all six time points.

Advantages and disadvantages of these procedures have been identified. One advantage is the use of the E-DECA 2.0 system, and the relative ease of the teachers being able to submit their rating scales online. Teachers were able to complete these scales on their own time, and save them as they worked on them, and submit them later, if necessary. For the teachers that utilized the E-DECA 2.0 system, there was no need to collect paper scales. Furthermore, the DECA-P2 has been demonstrated to be a reliable and valid instrument to collect social-emotional information from low-income children (see *Instrumentation*). This strength-based scale also helps to illuminate the children's resilient qualities instead of solely focusing on behavior deficits. Another advantage of this procedure is the inclusion of qualitative focus groups for a mixed methods approach. The weaknesses of the quantitative design are discussed in the *Validity* section, and the addition of qualitative data may help to compensate for some of these weaknesses.

Disadvantages of this procedure have also been identified. Foremost, the researcher did not anticipate that of the 240 possible participants in the original sample, only 103 were returning for the following school year (September 2013, time point O_2). This significantly decreased the anticipated sample size, even before requesting parental consent. Furthermore, the majority of the children at the assigned centers rode a bus to and from the center, forcing the researcher to send home consent materials with the children, instead of being able to speak with the parents face-to-face at pick-up and drop-

off. This created challenges with the parental response rate both for the parent permission form in the both rounds of recruitment and the Summer Parent Surveys. Next, one of the teachers had technical difficulties with their Internet access and then went on maternity leave, resulting in 12 of the initial 34 participants not receiving pre-summer ratings at the O_1 time point. This decreased the initial round of participants to 22 participants, furthering the need for the second round of recruitment. An additional complication was requiring the teachers to complete the rating scales during hectic times of the school year. Teachers are very busy at the beginning of the school year helping students transition back to school, and completing required assessments and trainings. In addition one center was short-staffed. This resulted in a delay in some of the teachers being able to complete the post-summer rating scales at time point O_2. The researcher provided these teachers with paper copies of the DECA-P2 to further support these teachers in their effort. This strategy appeared to be very successful for these teachers as they indicated that they preferred the paper scales to the E-DECA 2.0. Further complications include the fact that the Head Start population is fairly transient – some students left their centers mid-school year, further decreasing the sample size.

Participants

The population studied is Head Start preschool children (ages three to five), in Franklin County. According to the Child Development Council of Franklin County's website, Head Start, "CDCFC delivers Head Start, Early Head Start and Child Care services to over 2,500 low-income children and families throughout Franklin County" (Child Development Council, Franklin County, 2010). Of these 2,500 children the 2011 annual report indicates, 93% are of racial/ethnic minority status (74% African American,

12% American Indian or Alaskan Native, 5% Biracial, and 2% Asian). English is the primary language for 76.4% of the children, followed by 10.1% African native language and 9.7% Spanish. Other represented native languages include Caribbean, Middle Eastern, South Asian, East Asian, Pacific Island, European and Slavic. Sixty-six percent of Franklin County Head Start children live in single-parent households, 39% of households have at least one or both parents employed and 46% of enrolled families receive Temporary Assistance for Needy Families (Child Development Council of Franklin County, Inc., 2011). In order to qualify for Head Start services, families must meet certain low-income requirements; therefore, all participants are of low-income status.

The total overall sample in this study consists of n = 99 student participants. Fifty of the participants are male, 49 are female, 62.6% (n = 62) were three years old when they entered the study, and 37.4% (n = 37) were four years old. Five year-old students were not recruited to participate, as they would be transitioning to kindergarten and not returning to the center after the initial summer. While 91.9% of the children have no disability, the sample includes 5.1% (n = 5) with a developmental delay, 1.0% (n = 1) with an intellectual disability, and 1.0% (n = 1) with a speech/language impairment. In this sample 18.2% (n = 18) were reported as having no siblings, 31.3% (n = 31) had one sibling, 28.3% (n = 28) had two siblings, 15.2% (n = 15) had three siblings, and 6.1% (n = 6) reported five siblings. Participant recruitment was on-going from May 2013 through November 2013, and some participants dropped out or aged out of the study at various points. As such, none of the participants received a teacher rating at all six time points.

In addition to the child participants, eight teachers participated in this research. The teacher participants are 100% female, 50% African American, 25% Hispanic, and 25% Caucasian. Twenty-five percent of the teachers are between the ages of 20 and 29, 37.5% of the teachers are between the ages of 30 and 39 years old, and 37.5% of teachers are above 40 years old. To address the particular research questions for this study, the Head Start teachers were asked to complete rating scales for each of their student participants. Lastly, these teachers were invited to participate in focus groups to gather more details about their student's transitions back to school after out-of-school time.

Instrumentation

Both formal and informal measures were used to obtain the data for this study. Specifically, a measure of social-emotional competencies was included as a formal measure to obtain data about student's skills throughout the school year. An informal survey that includes questions related to summer childcare and activities was provided to parents to obtain information about the child's opportunities to engage in social situations and practice social-emotional skills. Lastly, focus groups with structured questions were used with the teachers to gather specific information about their student's transitions back after school breaks. Details about each of the instruments are presented below.

The Devereux Early Childhood Assessment Preschool Program – Second Edition. The Devereux Early Childhood Assessment Preschool Program – Second Edition (DECA- P2) – web version (E-DECA 2.0) is the primary instrument used in this study (see Appendix A). The PDF version of this scale was also utilized. This measure is a teacher rating form that assesses social-emotional skills and related protective factors for preschoolers ages three to five. It is a standardized, norm-based measure (based on the

2008 census). The form includes 38 items. Each item asks the teacher to record the frequency of an observed behavior/characteristic using the following frequencies: *Never, Rarely, Occasionally, Frequently, Very Frequently.* The DECA-P2 has two main sub-scales: the protective factor scales (TPF) and the behavioral concerns (BC) scale. The protective factor scales include initiative, self-regulation, attachment/relationships, and total protective factors. These scales describe the student's social-emotional competencies related to resiliency. The protective factor scales serve to make this instrument a strength-based measure. The second sub-scale is the behavioral concerns scale, which measures a variety of problem or challenging behaviors for children including, "aggression, withdrawal, attention, and the control of extreme emotions" (LeBuffe & Naglieri, 2012, p. 93). The scale scores are reported as *T*-scores, with a mean of 50 and standard deviation of 10. The *T*-scores on the DECA-P2 range from 28 to 72. These scores correspond to a categorical description. For each of the protective factor scales, the descriptive categories are as follows: *Strength* (60 and above), *Typical* (41-59), and *Area of Need* (40 and below). For the behavioral concerns scale, *T*-scores of 60 and above are considered an *Area of Need* and any score less than 60 is considered *Typical*.

The DECA-P2 has positive reliability psychometrics. The internal reliability alpha coefficients for teacher raters for each scale range from .86-.95. Test-retest correlations range from $r = .78$ to $r = .94$. Interrater reliability coefficients for teachers range from $r = .36$ to $r = .77$. The user's manual indicates, "The results of several reliability studies of the DECA-P2 indicate that the instrument is reliable for assessing children's social and emotional competencies" (LeBuffe & Naglieri, 2012). Content validity for the DECA-P2

was established by basing the test items on the literature and conducting focus groups with experts in the field of early childhood education. A criterion-related validity study demonstrated that scores significantly differentiated between groups of children with and without emotional or behavioral problems. A construct-validity study compared the DECA-P2 with the Conners Early Childhood Scale (Conners EC) and the Preschool Behavioral and Emotional Rating Scale (PreBERS). Results indicate strong convergent validity with these scales (LeBuffe & Naglieri, 2012).

Furthermore, past research has replicated the psychometric properties of the Devereux Early Childhood Assessment and has demonstrated it to be a reliable and valid measure of social-emotional skills (Jaberg, Dixon, & Weis, 2009; LeBuffe & Shapiro, 2004; Lein & Carlson, 2009; Ogg, Brinkman, Dedrick, & Carlson, 2010). Further research has validated the use of this assessment with diverse socioeconomic, linguistic and ethnic populations (Crane, Mincic, & Winsler, 2011; Lein & Carlson, 2009) making this instrument a sound choice for use with Franklin county's Head Start population.

Summer parent survey. The second instrument used in this study is the pre- and post-Summer Parent Surveys (see Appendix B). The researcher created these parent surveys to gather information from parents about their child's planned and actual summer experiences. These questions ask about the child's activities during the summer, and how and in what setting the child was cared for during the break. These questions were based upon a review of the literature citing common activities children ages three through five participate in, taking into account the demographic variables of this population, such as low socio-economic status (Chin & Phillips, 2004).

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Teacher focus groups. Focus groups were also conducted with the teachers to gain more in-depth information regarding their student's transitions back to the classroom after out-of-school time. These focus groups were conducted post-winter break (January 2014; time point O_4), and at the beginning of the 2014-2015 school year (September 2014; time point O_6). Data obtained from the focus groups supplements the data received from the DECA-P2 scales and assists in the explanation of the quantitative findings. The prompts used for the focus groups can be found in Appendix C.

Variables

The predictor variables in this study are mostly demographic in nature. The first variable is the student's gender. Gender is nominal and categorical, with two levels, male and female. The second variable is the student's age at which they entered the study. This variable is ratio and was recorded as a whole number (either three or four years). The third variable is the participant's disability status. This was obtained from the student's school records. This variable is also nominal and categorical, with 14 levels. These 14 levels come from the following federally recognized disabilities under IDEA: autism, deaf-blindness, deafness, developmental delay, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment, including blindness (National Dissemination Center for Children with Disabilities, (n.d.). The next variable is the number of siblings living in the home with the student.

This is a ratio level of measurement and was recorded as a number. The final variable is in what setting was the child cared for during the summer months (June-August 2013 and June-August 2014). This is nominal and categorical, with five levels: center daycare, cared for by parent, in-home daycare, cared for by relative, and other.

Due to the homogeneity of the Franklin county Head Start population, as discussed in the *Participants* section, (i.e., low income, ethnic/cultural minority), the variables of race/ethnicity and socioeconomic status were not controlled for in this study. Excluding these homogenous variables increases the power of the analysis, especially when the sample size is limited, as is the case in this study.

The dependent variable in this study is student's social-emotional skills. These skills are measured by teacher ratings at six time points using the Devereux Early Childhood Assessment Preschool Program – Second Edition (DECA- P2). These ratings will be scored to provide the Total Protective Factors (TPF) scale *T*-score as well as a Behavioral Concerns (BC) scale *T*-score at each of the six time points during the study. These two scales measure student's social-emotional skills (TPF scale) and absence of these skills (BC scale). Change in the dependent variables over time can be calculated by subtracting the pre-time TPF *T*-score from the post-time TPF *T*-score. For instance, post-summer TPF *T*-score minus pre-summer TPF *T*-score and post-winter TPF *T*-score minus pre-winter TPF *T*-score. The same calculation can be done for the BC *T*-scores. These variables are at the ratio level of measurement. Furthermore, learning rates across the school year and during out-of-school time periods can be calculated (i.e., TPF post *T*-score minus TPF pre *T*-score, divided by the number of months in between measurements). These variables will be used in addressing research question three.

Validity

    Internal validity. Internal validity is concerned with, "Did in fact the experimental treatments make a difference in this specific experimental instance?" (Campbell & Stanley, 1963, p. 5). In the current study, this refers to whether experiencing out-of-school time actually changes (decreases) the student's social-emotional competencies, or is this change due to other factors? Campbell and Stanley (1963) list the threats to internal validity for the one-group pretest-posttest design. These possible threats include history, maturation, attrition, testing, and instrumentation.

    The history effect refers to an event that occurs during the study that can affect participant's responses. The main 'event' that is occurring between measurements in this study is out-of-school time, and the passage of the school year. Certain events could happen during these time frames that could influence the study. For instance, if Head Start were to present an in-service to all of their teachers on the importance of social-emotional competencies, and new ways to address these in the classroom, this may change how they interact with the children, which in turn may influence the children's social-emotional development. When the teachers next rate the children's social-emotional development, the change over time may be a result of the new curriculum, and not necessarily attributed to the out-of-school time. In this study, all of the participants attend a Franklin County Head Start center. Therefore, while the center locations vary, all are within Franklin County and the Child Developmental Council of Franklin County directs all of the centers, hence, participants are from the same general location and present with similar demographics across settings. Furthermore, the schedule for testing is the same for all participants (teachers complete the rating scales at the same time points

across centers). These design features help to control the threat of history. A second threat to internal validity is maturation. The children in the study may make gains in their social-emotional skills due to the passage of time and therefore may have higher teacher reports at later time points when compared to the earlier ones. They may learn additional social-emotional skills during their in-school time that may assist them with the back to school adjustments after school breaks. This could be an interesting explanation if results demonstrate a gain in social-emotional skills, instead of a deficit, as expected. To help control for this threat the researcher will collect each participant's age at which they enter the study, which will allow the researcher to run separate analyses for each age group, if necessary.

Another threat to internal validity is participant attrition/mortality. Low-income populations have historically been viewed as a transient population, relocating more frequently than the general population (Cohen & Wardrip, 2011). The Head Start Program Fact Sheet for the 2012 fiscal year reported that about 14% of the families served during the 2012 fiscal year received some measure of housing assistance. Additionally, more than 5% of the families served experienced homelessness during the 2012 fiscal year (Early Childhood Learning and Knowledge Center, 2012). As such, there is significant concern over participants dropping out of the study during the school year, or not returning to the same center after summer break. To compensate for this threat, the researcher will monitor the reasons given for why students leave their centers/the study. Any identifiable patterns regarding these reasons will be discussed.

Additionally, the one-group, pretest-posttest design controls for mortality by having pre-test scores for all participants, with which the researcher can examine for differences among participants who drop out and those who complete the study.

Next, the threat of a testing effect may occur because the teachers are being asked to complete the same rating scale at multiple times over the school year. The teachers may be more likely to complete the rating scale in a similar manner because they have seen it before. A related threat is the instrumentation effect, which refers to changes in the observers, or scorers that may cause them to complete the rating scale in a different way. For example, the teacher may have more time to complete the rating scales at the beginning of summer, but due to the hectic nature of the start of the school year, the teacher may rush through completing the rating scale at this time point. This could cause a change in the data that would be due to the observer, and may not reflect actual change of the child's social-emotional skills. It is important to be aware of these issues of internal validity when making conclusions about this study. However, because the study is largely descriptive and exploratory in manner, the researcher does not intend to demonstrate cause and effect, but to simply determine if an association exists between variables (out-of-school time and social-emotional skills) and determine the best predictors of this relationship.

External validity. Due to the limitations and exploratory nature of this study, the results cannot be generalized beyond the study sample. Future studies should utilize larger, nationally representative samples and a study design including a control group, in order to further generalize results.

Data Analysis

Initial Analyses

Data was entered and analyzed using SPSS V20.0.0 for Macintosh. The initial

analysis includes plotted data and descriptive statistics. The plotted data gives a visual

representation of the student's mean social-emotional skill and behavioral concerns

scores, as they change (or remain stable) over time as measured by their teachers.

Descriptive statistics include the means and standard deviation for the DECA-P2 scales at

each time-point of measurement.

Pilot Test

Due to the difficulties with initial recruitment (n = 22) the first two time points

(O_1 and O_2, pre- and post-summer 2013, respectively) are treated as a pilot study. In

addition to descriptive statistics about this sample, a repeated measures t-test was

conducted to determine if there is a significant change in student's social-emotional skills

after summer break.

Planned Contrasts

For the remaining participants from the second round of recruitment with matched

timed point data (n = 17), two planned contrasts were conducted to determine if there is a

significant change in the student's social-emotional skills over winter break (O_3 and O_4)

and the second summer break (O_5 and O_6). The necessary assumptions were examined

and the planned contrasts were carried out.

Planned contrasts were used in this analysis because the researcher is interested in only a few specific comparisons as related to the research questions and hypotheses, as opposed to every possible contrast between the six time points. Additionally, planned contrasts generally have more power than post-hoc comparisons (Lomax, 2007).

Repeated Measures ANOVA

Repeated measures ANOVAs were run to determine which independent variables (gender, age, disability status, number of siblings, participation in summer programming) best explain the social-emotional skill change over the summers. To accomplish this, the researcher combined matched pairs with complete data for summer one ($n = 22$) and summer two ($n = 18$) giving an overall pre-post summer database with forty cases. Assumptions were assessed and the ANOVAs were conducted. The models were interpreted, and interaction and main effects are discussed along with post-hoc comparisons.

Learning Rates

Learning rates were also calculated for additional comparisons and to address research question three. These learning rates were calculated by subtracting the two time points and dividing that number by the number of months between the two measurements. The following learning rates were calculated for both the total protective factor (TPF) scale and the behavioral concern (BC) scale: O_2-O_1 change over the first summer (pilot test group); O_4-O_3 change over winter break; O_6-O_5 change over second summer; and O_5-O_2 change over the school year.

The calculation of these learning rates allowed for the comparison of social-emotional skill growth during the school year to the growth (or decline) during out-of-school time. This contributes context to the amount of growth shown during these time points and can help to explain practical significances.

Qualitative Analysis

Qualitative focus group data from the teachers was analyzed and reported in a narrative format, highlighting similar themes and categories among responses. Focus group prompts that were used can be found in Appendix C. These prompts focus on the classroom as a whole and the teacher's perceptions of their student's social-emotional skills at the end of the previous school year, as compared to the beginning of the current school year. Additionally, during the winter focus group, teachers were asked about their student's social-emotional skills pre- and post-winter break. Teachers were asked if they perceived a difference in these skills and to what do they attribute this difference. These questions will serve to supplement the DECA-P2 reports. The focus groups allowed the teachers to discuss specific observations they have made of their class as a whole. The DECA-P2 had the teacher rating each individual child and asks very specific questions about the child's skill set. The focus groups allowed the teachers to share any comments or observations that were not measured by the DECA-P2, or that the DECA-P2 failed to address. Prompt five allowed the teachers to share suggestions for activities to help to promote social-emotional growth during out-of-school time. This information may be useful to include in sharing the results of this study with the education community and with parents, to support the social-emotional learning of children during school breaks.

The addition of qualitative focus groups to this project has many advantages.

First, a greater breadth and depth of information can be gained about the children's back-to-school transitions by speaking with the teachers. While the focus groups had structured prompts, they also had built in flexibility to explore more topics that came up within the group meeting. Furthermore, interview data can be more easily interpreted and reported as compared to some quantitative data. One weakness of qualitative focus groups includes difficulty generalizing the information gained to other samples. Furthermore, focus groups do not typically utilize reliable and valid measures (especially when one is creating the prompts/questions). The questions can be based on theory and literature, but they have not been validated like quantitative instruments. Finally, while data analysis for interviews may be simpler than quantitative, it is often more time consuming. By using both quantitative and qualitative methods, the researcher aims to compensate for the weaknesses of both approaches, and benefit from the strengths of both as well.

Chapter 4: Results

Research Questions

This study was designed to address the following research questions:

1. Is there a relationship between out-of-school time and preschoolers' social-emotional competencies, as measured by teacher ratings?

    1a. Do social-emotional skills decrease as a result of out-of-school time?

    1b. Does the length of the school break impact this effect?

2. Do demographic variables predict this change in social-emotional competence?

3. How does the rate of growth in social-emotional competence during the school year differ from the social-emotional growth rates observed during out-of-school time (e.g., summer and winter breaks)?

Data Analysis

Research Question One

Is there a relationship between out-of-school time and preschooler's social-emotional competencies, as measured by teacher ratings? Do social-emotional skills decrease as a result of out-of-school time? Does the length of the school break impact this effect?

To address this research question, a repeated measures t-test (as a pilot test) was conducted with the initial pre-post summer 2013 data ($n = 22$) and planned contrasts were conducted for the remaining four time points ($n = 17$).

Pilot test. Due to the difficulties with initial recruitment and none of the participants having ratings at all six time points, the first two time points (O_1 and O_2, pre- and post-summer 2013, respectively) are treated as a pilot study. The pilot study included 22 participants. Table 1 displays the demographic data for this sample.

Table 1

Demographic Data for Pilot Sample, O_1 and O_2 (n = 22)

	Mean (*sd*)	n	Percent
Gender			
Male		14	63.6%
Female		8	36.4%
Age upon entering study	3.45 (.51)		
Three-years old		12	54.5%
Four-years old		10	45.5%
Disability Status			
None		20	90.9%
Developmental Delay		1	4.5%
Speech/Language Impairment		1	4.5%
Number of Siblings	1.86 (1.17)		
0 Siblings		4	18.2%
1 Sibling		4	18.2%
2 Siblings		5	22.7%
3 or more Siblings		9	40.9%

The means and standard deviations for the total protective factors scale and behavioral concerns scale *T*-scores for time points O_1 and O_2 are provided in Table 2. Figure 2 provides a visual representation of these means across the two time points.

Table 2

Means and Standard Deviations of TPF and BC T-scores for Time Points O_1 and O_2 (n =

22)

Time Point	Total Protective Factors (TPF) Mean (*sd)*	Behavioral Concerns (BC) Mean (*sd)*
Pre-Summer 2013 (O_1)	49.95 (6.60)	50.05 (9.10)
Post-Summer 2013 (O_2)	51.36 (7.46)	56.27 (10.04)
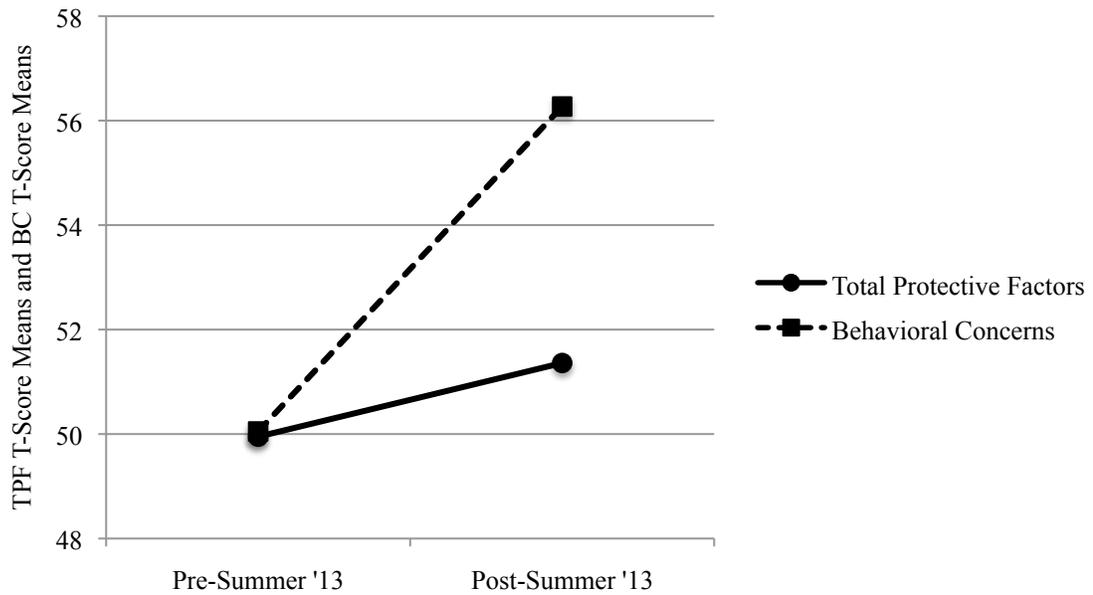
Figure 2. Mean TPF and BC *T*-scores for Time Points O_1 and O_2 for Pilot Sample

As demonstrated in Table 2 and Figure 2, both students' mean total protective factors scores and behavioral concerns scores increased over summer break 2013. Repeated measures t-tests were conducted to determine if the TPF and BC changes over summer break were statistically significant.

The pre- and post-summer 2013 data were collected for a sample of 22 students, with a total protective factors (TPF) pre-summer mean of 49.95 ($SD = 6.60$) and a TPF post-summer mean of 51.36 ($SD = 7.46$), indicating student's total protective factor score increased by 1.41 points over summer break. A repeated measures t-test was conducted and indicated that the pre- and post-summer TPF means were not statistically different ($t = -0.88$, $df = 21$, $p = .39$). Therefore, although student's social-emotional skills increased over summer 2013, this increase was not large enough to be statistically significant at the .05 level of significance.

This same test was conducted for the behavioral concerns scale (BC). Students had a BC pre-summer mean of 50.05 ($SD = 9.10$) and a BC post-summer mean of 56.27 ($SD = 10.04$), indicating student's behavioral concerns increased by 6.22 points over summer break. The repeated measures t-test indicated that the pre- and post-summer BC means were statistically different ($t = -2.24$, $df = 21$, $p = .036$) at the .05 level of significance.

To address questions of maturation effects, the student's ages were calculated at both time points for this sample. Students were categorized by six-month increments (i.e., the 3.5 category is for students ages 3.5-3.11, the 4.0 category is for students ages 4.0-4.4, and the 4.5 category is for students ages 4.5-4.11). The TPF and BC means by age were graphed for this sample and are reflected in Figure 3 and Figure 4, below.
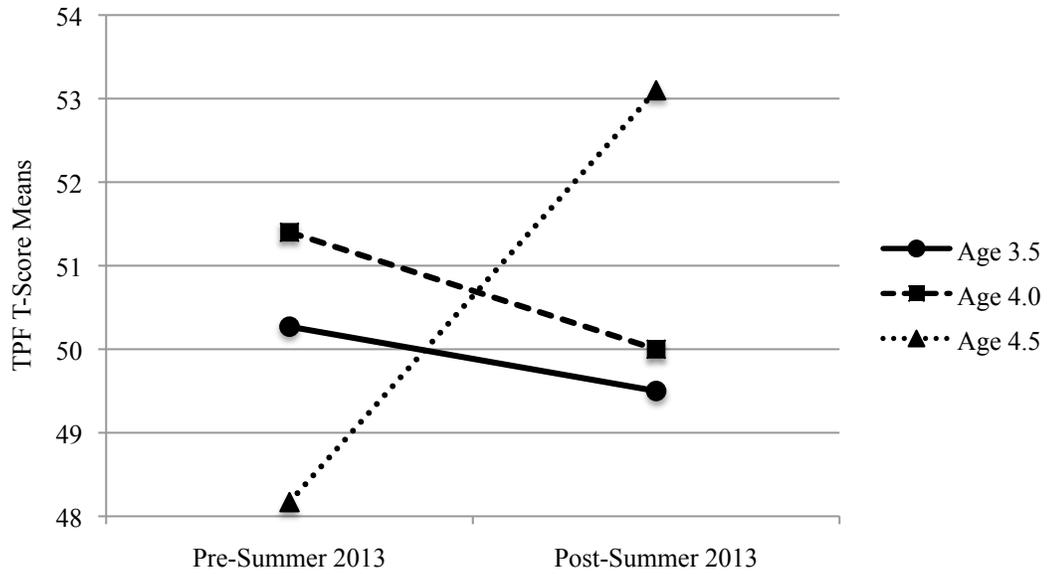
Figure 3. Mean TPF *T*-scores by Age for Time Points O_1 and O_2 for Pilot Sample

As indicated in Figure 2, the overall sample demonstrates an increase in TPF scores by 1.41 points over summer 2013. However, when separated by age group, Figure 3 demonstrates that for 4.5 year-olds, their TPF scores increased by 4.93 points over summer 2013, whereas 3.5 and 4.0 year-old's TPF scores decreased by 0.77 and 1.40 points over summer 2013, respectively.
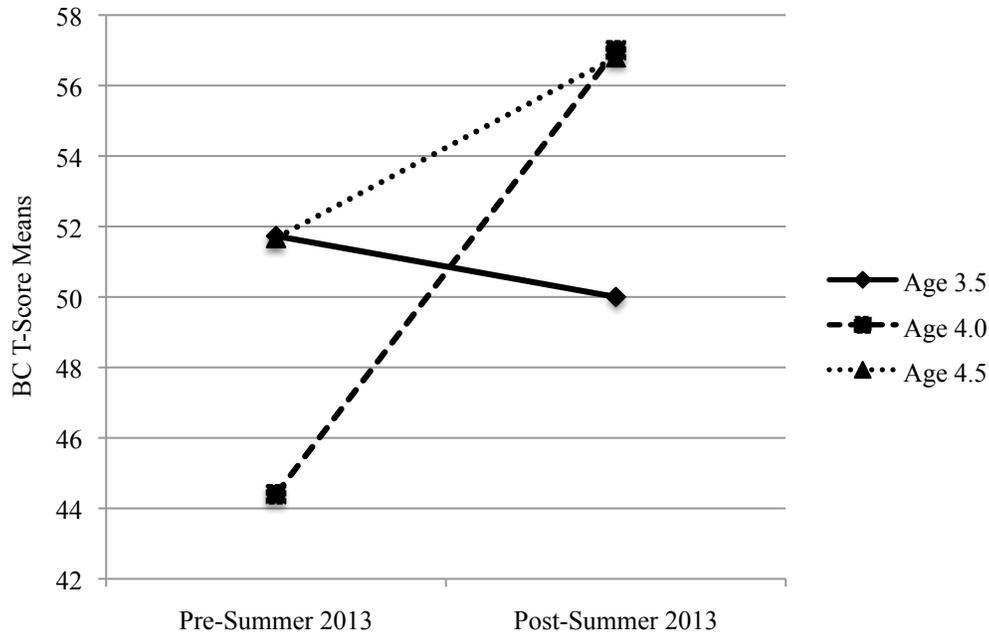
Figure 4. Mean BC *T*-scores by Age for Time Points O_1 and O_2 for Pilot Sample

The overall sample demonstrates an increase in BC scores by 6.22 points over summer 2013 as well (see Figure 2). Figure 4 demonstrates that BC scores decreased for 3.5 year-olds by 1.73 points and increased by 12.60 points and 5.13 points for 4.0 and 4.5 year-olds over summer 2013, respectively.

Planned contrasts. For the remaining four time points, planned contrasts were conducted to determine if there was a significant change in the student's social-emotional skills over winter break (O_3 and O_4) and the second summer break (O_5 and O_6). The sample size for this analysis is *n* = 17, as only 17 participants had TPF and BC measures over all four time points.

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A second set of planned contrasts were conducted to determine if there was a significant change in the student's behavioral concerns over winter break and the second summer break. Demographic information for the sample used in both analyses is presented in Table 3.

Table 3

Demographic Data for Planned Contrasts Sample, O_3 - O_6 (n = 17)

	Mean (*sd)*	n	Percent
Gender			
Male		9	52.9%
Female		8	47.1%
Age upon entering study	3.00 (0.00)		
Three-years old		17	100%
Four-years old		0	0%
Disability Status			
None		16	94.1%
Intellectual Disability		1	5.9%
Number of Siblings	1.53 (1.01)		
0 Siblings		3	17.6%
1 Sibling		5	29.4%
2 Siblings		6	35.3%
3 Sibling or more Siblings		3	17.6%

The means and standard deviations for the total protective factor scale and behavioral concerns scale *T*-scores for time points O_3 through O_6 are provided in Table 4. Figure 5 provides a visual representation of these means across the four time points.

Table 4

Means and Standard Deviations of TPF and BC T-scores for Time Points O_3 - O_6 (n = 17)

| | Total Protective Factors (TPF) | Behavioral Concerns (BC) |
Time Point	Mean (*sd)*	Mean (*sd)*
Pre-Winter Break (O_3)	46.00 (7.07)	53.35 (7.97)
Post-Winter Break (O_4)	48.88 (10.04)	50.35 (9.89)
Pre-Summer 2014 (O_5)	50.59 (7.84)	52.18 (9.61)
Post-Summer 2014 (O_6)	52.59 (7.36)	48.18 (8.33)
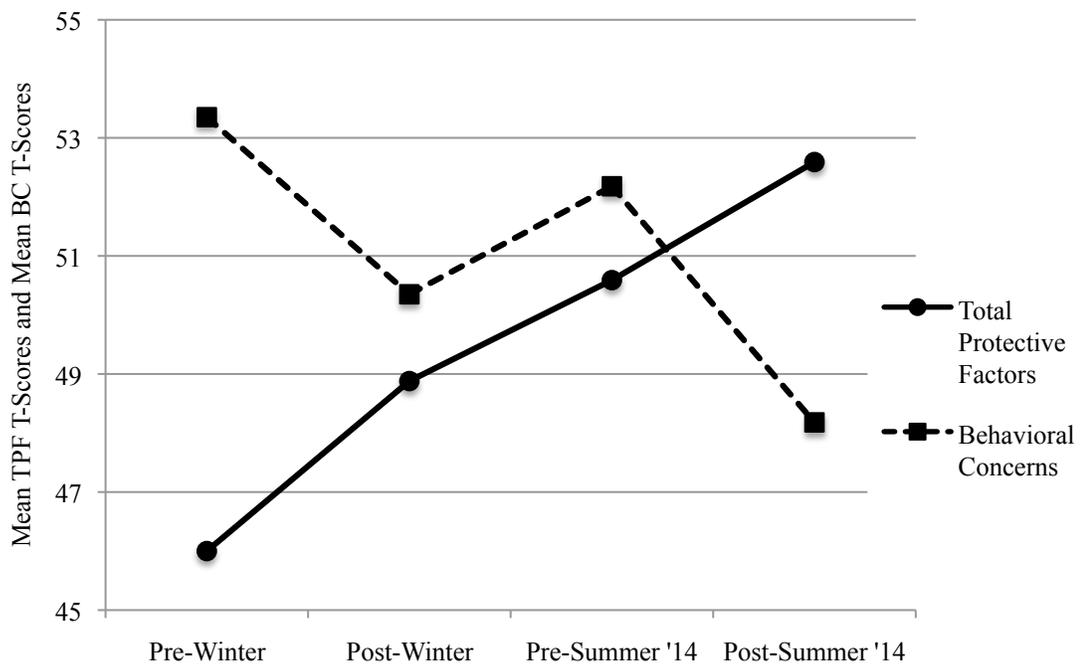
Figure 5. Mean TPF and BC *T*-scores for Time Points $O_3 - O_6$

As demonstrated in Table 3 and Figure 5, students' mean total protective factors scores increased and behavioral concerns scores decreased over winter and summer break, respectively. The pre- and post-winter and pre- and post-summer 2014 data were collected for a sample of 17 students, with a total protective factor (TPF) pre-winter mean of 46.00 ($SD = 7.07$), a TPF post-winter mean of 48.88 ($SD = 10.04$), a TPF pre-summer 2014 mean of 50.59 ($SD = 7.84$) and a TPF post-summer 2014 mean of 52.59 ($SD = 7.36$), indicating student's total protective factor scores increased over both winter and summer break. Planned contrasts were conducted to determine statistical significance. Histograms were reviewed and it was determined the assumption of normality was met. The assumption of sphericity was assessed with Mauchly's Test of Sphericity, which indicated this assumption was violated (Mauchly's W = .403, $\chi^2 = 13.385$, $df = 5$, $p = .020$). Planned contrasts indicate the mean TPF increase over winter break was statistically significant ($F(1,16) = 5.858$, $p = .028$), while the mean TPF increase over summer break was not statistically significant ($F(1,16) = .949$, $p = .344$).

The same analysis was completed for the behavioral concerns (BC) means. This analysis utilized the same sample of 17 students. Students in this sample had a BC pre-winter mean of 53.35 ($SD = 7.97$), a BC post-winter mean of 50.35 ($SD = 9.87$), a BC pre-summer 2014 mean of 52.18 ($SD = 9.61$) and a BC post-summer 2014 mean of 48.18 ($SD = 8.33$), indicating student's mean behavioral concerns scores decreased over both winter and summer break. Planned contrasts were conducted to determine statistical significance. Histograms were reviewed and it was determined the assumption of normality was met. The assumption of sphericity was assessed with Mauchly's Test of Sphericity, which indicated this assumption was satisfied (Mauchly's W = .559, $\chi^2 =$

8.568, $df = 5$, $p = .128$). Planned contrasts indicate the mean BC decreases over winter and summer break were both statistically significant ($F(1,16) = 9.714$, $p = .007$, and ($F(1,16) = 5.144$, $p = .038$, respectively).

As was conducted with the pilot test data, the student's ages were calculated at each of the four time points for this sample, using the same six-month increments as previously discussed. The TPF and BC means by age were graphed for this sample and are reflected in Figure 6 and Figure 7, below.
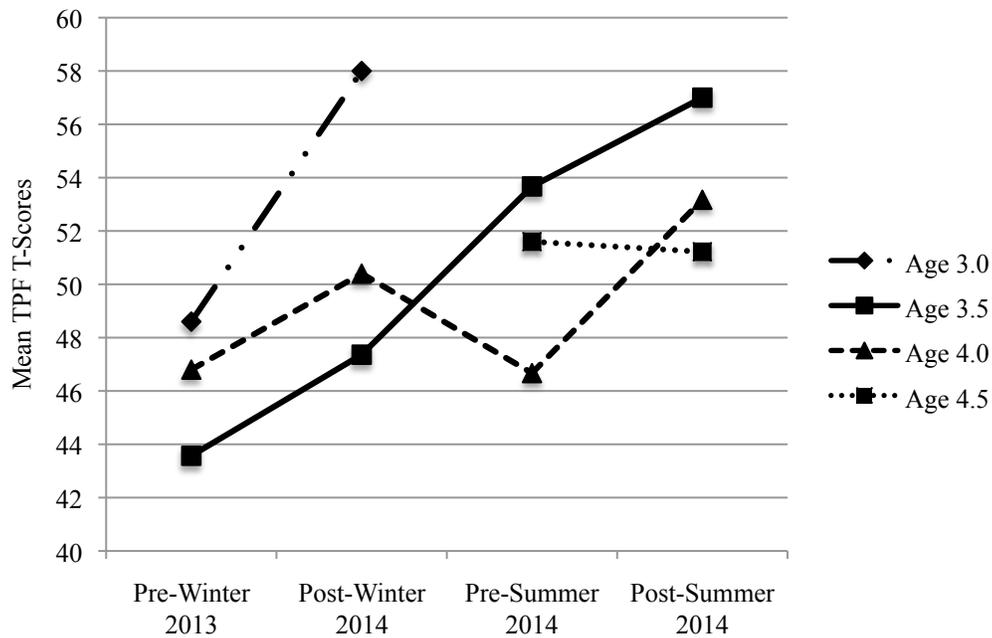
Figure 6. Mean TPF *T*-scores by Age for Time Points O_3-O_6

As indicated in Figure 5, the overall sample demonstrates an increase in TPF

score over winter break 2013-2014 and summer 2014. When separated by age group,

Figure 6 demonstrates this increase over the school breaks is consistent for all age

groups, except for age 4.5, which showed a slight decrease in TPF score over summer
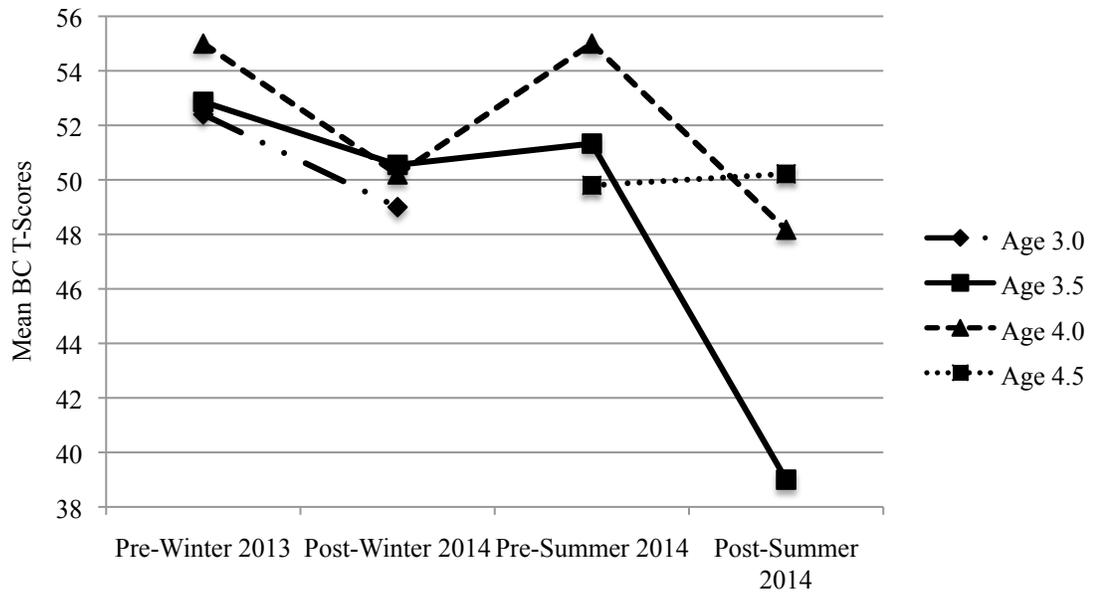
2014.

Figure 7. Mean BC *T*-scores by Age for Time Points O_3-O_6

The overall sample demonstrates a decrease in BC scores over winter break 2013-

2014 and summer 2014 (see Figure 5). Figure 7 demonstrates that BC scores decreased

over both school breaks for all age groups, except for age 4.5, which showed a very small

BC score increase over summer 2014.

Research Question Two

Do demographic variables predict this change in social-emotional competence?

Repeated measures ANOVAs. To address this research question, two repeated measures ANOVAs were run to determine how demographic variables impact social-emotional and behavioral concerns change over the summers, respectively. The design for each ANOVA is: one within-subjects factor: time (2 levels) x three between-subjects factors: gender (2 levels), age upon entering study (2 levels), and number of siblings (4 levels). The dependent variable for the first model was the students' total protective factors (TPF) *T*-score and the dependent variable for the second model was the students' behavioral concerns (BC) *T*-score. To examine the effects over the combined summers, the researcher combined the matched pairs with complete data for summer one (n = 22) and summer two (n = 18) giving an overall pre-post summer database with forty cases.

This sample was comprised of 57.5% (n = 23) male participants and 42.5% (n = 17) female participants. The majority were three years old when entering the study (n = 30, 75.0%) and the remaining participants were four years old at study entry (n = 10, 25.0%). The mean age upon entering the study was 3.25 (*SD* = .439). Seven participants (17.5%) reported zero siblings, nine (22.5%) reported one sibling, eleven (27.5%) reported two siblings, and thirteen (32.5%) reported three or more siblings. The mean number of siblings reported was 1.75 (*SD* = 1.10). The majority of the sample did not have a disability (n = 37, 92.5%); one had a developmental delay (n = 1, 2.5%), one had an intellectual disability (n = 1, 2.5%), and one had a speech/language impairment (n = 1, 2.5%). Due to only three students having a disability, which created disparate groups, this variable was excluded from the analyses. The majority of the students were cared for

over the summer by a parent (n = 31, 77.5%), while others were cared for by a relative (n

= 3, 7.5%), and one selected "other" (2.5%). There were five missing cases (12.5%) for

this variable. Based on the available data, it was determined that none of the students in

this sample participated in formalized center-based programming (i.e., no one in this

sample selected "center daycare with other children"); therefore, this variable was also

excluded from the analyses. The descriptive statistics for this sample are provided in

Table 5.

Table 5

Demographic Data for Combined Summers Sample (n = 40)

	Mean (*sd*)	n	Percent
Gender			
Male		23	57.5%
Female		17	42.5%
Age upon entering study	3.25 (.439)		
Three-years old		30	75.0%
Four-years old		10	25.0%
Number of Siblings	1.75 (1.10)		
0 Siblings		7	17.5%
1 Sibling		9	22.5%
2 Siblings		11	27.5%
3 or more Siblings		13	32.5%
Disability Status			
None		37	92.5%
Developmental Delay		1	2.5%
Intellectual Disability		1	2.5%
Speech/Language Impairment		1	2.5%
How was your child cared for over the summer?			
Parent		31	77.5%
Relative		3	7.5%
Other		1	2.5%

Student's total protective factors (TPF) *T*-score increased by 2.03 points over the summers and their behavioral concerns (BC) *T*-score increased by 1.37 points over the summers. The means and standard deviations for these *T*-scores are reported in Table 6.

Table 6

Means and Standard Deviations of TPF and BC T-scores for the Combined Summers

Sample (n = 40)

	Total Protective Factors (TPF)	Behavioral Concerns (BC)
Time Point	Mean (*sd)*	Mean (*sd)*
Pre-Summer	50.10 (7.03)	50.88 (9.16)
Post-Summer	52.13 (7.39)	52.25 (10.42)

The first model examines the effects of time, gender, age upon entering the study, and number of siblings on the students' total protective factor (TPF) change over the summer. The result of Box's test is non-significant ($p = .837$), satisfying this assumption of homogeneity. The results of the tests of within-subjects effects suggest that the effect of the repeated factor of time is non-significant ($F(1,26) = 1.830$, $p = .188$).

The interactions between time and the independent variables are non-significant: time

and gender ($F(1,26) = 0.371$, $p = .548$); time and age ($F(1,26) = 0.175$, $p = .680$); time

and siblings ($F(3,26) = 0.076$, $p = .972$), suggesting the pattern of social-emotional

change over the summers occurred similarly for all participants regardless of their

gender, age upon entering the study, or the number of siblings they have. Table 7

demonstrates the univariate test results.

Table 7

Tests of Within-Subjects Effects for TPF Change over Combined Summers

	F (df)	p	Partial η^2
Time	1.830 (1,26)	.188	0.066
Time * Gender	0.371 (1,26)	.548	0.014
Time * Age	0.175 (1,26)	.680	0.007
Time * Siblings	0.076 (3,26)	.972	0.009

None of the main effects are significant: gender ($F(1,26) = .266$, $p = .610$); age

($F(1,26) = .054$, $p = .817$); siblings ($F(3,26) = 1.701$, $p = .191$). These statistics are

reported in Table 8.

Table 8

Tests of Between-Subjects Effects for TPF Change over Combined Summers

	F (df)	p	Partial η^2
Gender	0.266 (1,26)	.610	0.010
Age	0.054 (1,26)	.817	0.002
Siblings	1.701 (3,26)	.191	0.164

Results of the Bonferroni Multiple-Comparison Procedures revealed no significant differences in siblings among the two time points. Post-hoc tests were not completed for the gender or age variables, as they only have two levels each.

The second model examines the effects of time, gender, age upon entering the study, and number of siblings on the students' behavioral concerns (BC) change over the summer. The result of Box's test is non-significant ($p = .527$), satisfying this assumption of homogeneity. The results of the tests of within-subjects effects suggest that the effect of the repeated factor of time is non-significant ($F(1,26) = .090$, $p = .766$). The interactions between time and the independent variables are non-significant: time and gender ($F(1,26) = .735$, $p = .399$); time and age ($F(1,26) = 1.417$, $p = .245$); time and siblings ($F(3,26) = .860$, $p = .474$), suggesting the pattern of behavioral concerns change over the summers occurred similarly for all participants regardless of their gender, age upon entering the study, or the number of siblings they have. Table 9 demonstrates the univariate test results.

Table 9

Tests of Within-Subjects Effects for BC Change over Combined Summers

	F (df)	p	Partial η^2
Time	.090 (1,26)	.766	.003
Time * Gender	.735 (1,26)	.399	.027
Time * Age	1.417 (1,26)	.245	.052
Time * Siblings	.860 (3,26)	.474	.090

None of the main effects are significant: gender ($F(1,26) = .1.387, p = .250$); age ($F(1,26) = .626, p = .436$); siblings ($F(3,26) = 1.187, p = .334$). These statistics are reported in Table 10.

Table 10

Tests of Between-Subjects Effects for BC Change over Combined Summers

	F (df)	p	Partial η^2
Gender	1.387 (1,26)	.250	.051
Age	.626 (1,26)	.436	.024
Siblings	1.187 (3,26)	.334	.120

Results of the Bonferroni Multiple-Comparison Procedures revealed no significant differences in siblings among the two time points. Post-hoc tests were not completed for the gender or age variables, as they only have two levels each.

Research Question Three

How does the rate of growth in social-emotional competence during the school

year differ from the social-emotional growth rates observed during out-of-school time

(e.g., summer and winter breaks)?

Learning/change rates analysis. This research question was addressed by

utilizing the means from the complete data set (n = 99). Table 11 demonstrates the

demographic data for the total sample.

Table 11

Demographic Data for Total Sample (n = 99)

	Mean (*sd*)	n	Percent
Gender			
Male		50	50.5%
Female		49	49.5%
Age upon entering study	3.37 (0.49)		
Three-years old		62	62.6%
Four-years old		37	37.4%
Disability Status			
None		91	91.9%
Developmental Delay		5	5.1%
Intellectual Disability		1	1.0%
Speech/Language Impairment		1	1.0%
Number of Siblings	1.53 (1.03)		
0 Siblings		18	18.2%
1 Sibling		31	31.3%
2 Siblings		28	28.3%
3 or more Siblings		21	21.2%

The means and standard deviations for each time point for the total sample (n =

99) are presented in Table 12. These means are displayed graphically in Figure 8.

Table 12

Means and Standard Deviations of TPF and BC T-scores for Total Sample

	Total Protective Factors (TPF)		Behavioral Concerns (BC)	
Time Point	n	Mean (sd)	n	Mean (sd)
Pre-Summer 2013 (O_1)	22	49.95 (6.60)	22	50.05 (9.10)
Post-Summer 2013 (O_2)	87	47.75 (8.01)	87	53.31 (10.59)
Pre-Winter Break (O_3)	93	48.35 (8.23)	93	50.27 (9.70)
Post-Winter Break (O_4)	86	48.26 (8.86)	86	48.71 (11.13)
Pre-Summer 2014 (O_5)	81	52.37 (10.13)	81	48.73 (11.15)
Post-Summer 2014 (O_6)	18	53.06 (7.41)	18	47.33 (8.84)
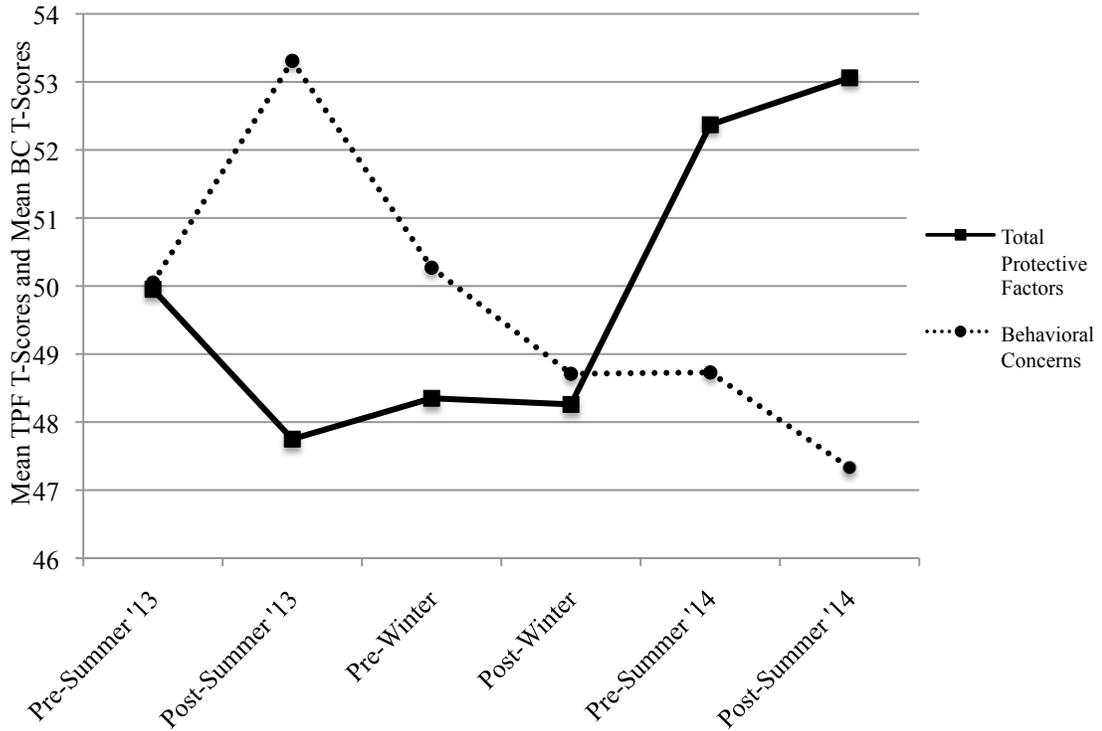
Figure 8. Means TPF and BC *T*-scores for Total Sample at each Time Point

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Mean monthly learning/change rates were utilized to provide a broader perspective for interpretation purposes. These rates allowed for the comparison of social-emotional skill growth and behavioral concerns during the school year to the growth (or decline) during out-of-school time. This adds context to the amount of growth shown during these time points. Furthermore, the learning rates allow use of the total sample (n = 99), and provides an expanded perspective that the smaller subsets of data may not provide.

The mean monthly learning/change rates were calculated by subtracting the mean *T*-scores for the two time points and dividing that number by the number of months between the two measurements. The following learning rates were calculated for both the total protective factors (TPF) scale and the behavioral concerns (BC) scale: $[(O_2-O_1)/3]$ change over the first summer; $[(O_4-O_3)/1]$ change over winter break; $[(O_6-O_5)/3]$ change over second summer; and $[(O_5-O_2)/7]$ change over the school year. Additionally, the mean monthly change rate for both summers was calculated by taking the average of the two summer rates. The learning/change rates are presented in Table 13, below.

Table 13

Learning/Change rates for TPF and BC over Selected Time Points for Total Sample

	Total Protective Factors (TPF)	Behavioral Concerns (BC)
Rate over Summer 2013	-0.73	1.09
Rate over Summer 2014	0.23	-0.47
Rate for both summers	-0.25	0.31
Rate over winter break	-0.09	-1.56
Rate over 2013-2014 school year	0.66	-0.65

As Table 13 demonstrates, students' social-emotional skills in the total sample decreased over the first summer and winter break, yet increased over the second summer. When averaged for both summers, students lost -0.25 units of social-emotional skills per month over the summer. Over the 2013-2014 school year, students gained 0.66 units of social-emotional skills per month. Students' behavioral concerns increased over the first summer and decreased over the second summer and over winter break. When averaged for both summers, students behavioral concerns increased 0.31 units per month over the summer. Over the 2013-2014 school year, students' behavioral concerns decreased 0.65 units per month. This data indicates that over the school year, students gained social-emotional skills and demonstrated a decrease in their behavioral concerns at almost the same rate. During the summer months they demonstrated a loss in social-emotional skills and an increase in behavioral concerns. These changes in means are displayed in Figure 9. Implications of these analyses will be further discussed in Chapter 5.
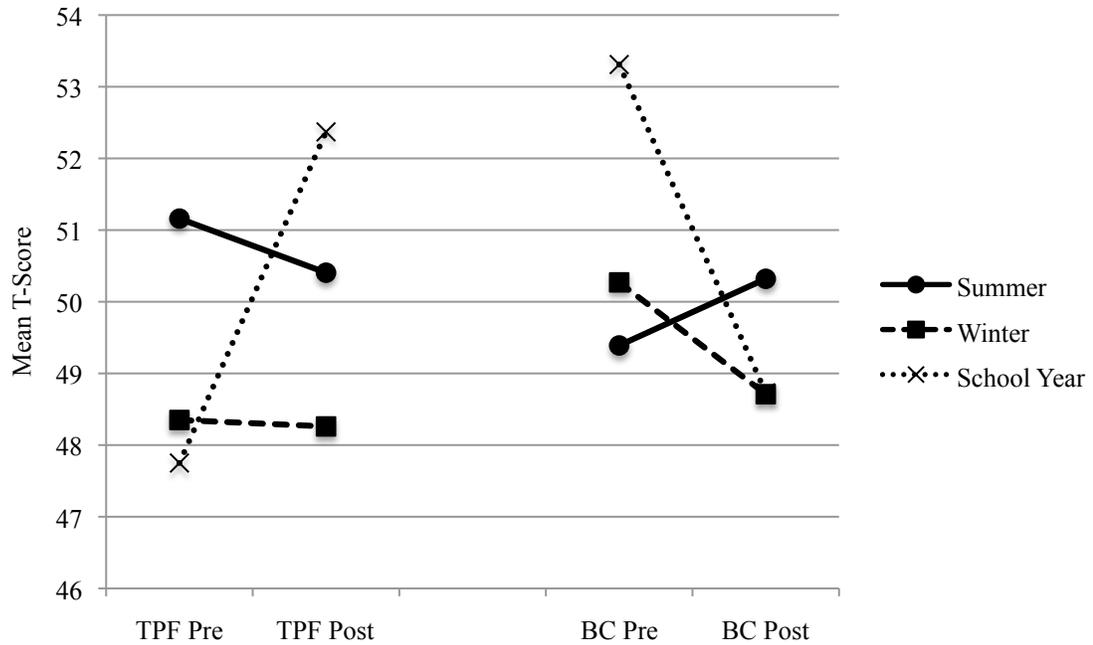
Figure 9. Mean TPF and BC *T*-scores Pre- and Post-Summers, Winter, and School Year

Qualitative Analysis

      Teacher focus groups. Teacher focus groups were conducted to supplement the quantitative data. Teachers at each center participated in focus groups after winter break (January 2014) and after the second summer break (September 2014). Qualitative focus group data was analyzed for similar themes and categories among responses.

      Post-winter break: January 2014 focus group. Results from the post-winter break focus group indicate teacher agreement upon the following themes: The teachers appeared surprised by the ease of the first couple of days back from winter break, "It wasn't as bad as I thought it was going to be… their behavior stayed the same… they bounced right back. They didn't have any problems adjusting". This is consistent with the

overall sample behavioral concerns (BC) change rate that demonstrates behavioral concerns decreased over winter break. One teacher described the transition as calm initially for the first couple of days back ("I was honestly floored by how calm the morning group was"), but then noticed a decline in student's behaviors, "days after they were bouncing off the walls again". Another center explained that while they did not notice any behavioral differences from pre- to post-winter break, the negative behaviors were consistent with pre-break, "We have a lot of negative behaviors and they were all still in place when we came back… lots of arguing, not able to share or take turns, screaming, lots of yelling, not following the directions of teachers". Two of the three centers noted positive academic gains over winter break and speculated that the children were practicing academics over winter break, such as practicing writing one's name.

When asked specifically about changes in student's social-emotional skills such as self-awareness and managing one's emotions, teachers tended to resort to individual examples. Two of the three centers provided examples of children who were doing well before break but regressed over break and had difficulty adjusting back, "one child in specific… really regressed… we [had] made really nice strides before the break and now like we're kind of backed up on that" and "there's some [children], that you do have to start all over [with]". One center spoke of positive changes in an individual "He's coming out of his shell a lot… he's talking a lot more".

One teacher spoke about how a negative home environment impact's a student's back-to-school transition. This teacher indicated that lack of structure, lack of redirection, and permissive parenting carries over to the classroom and causes difficulty when the teachers are trying to establish a structure and routine. Teachers at all three centers

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emphatically endorsed classroom structure, routine and reviewing classroom rules as the most important tasks with which they engage in order to help ease the transition back-to-school for students.

When asked about materials sent home over break, two of the three centers explained that they provided a packet for students and parents to work on together over break. These packets included academic materials such as shapes, colors, and practicing writing one's name. Neither packet included social-emotional learning materials such as identifying emotions and feelings. The third center described a family engagement packet that they send home on a weekly basis; this center does not provide any additional materials for school breaks.

Post-summer break: September 2014 focus groups. Results from the post-summer break 2014 teacher focus groups elicited similar themes when compared with the post-winter break focus groups. On the whole, the teachers reported that the students who had attended Head Start the previous year had little trouble transitioning back to the classroom in a timely manner. One teacher noted, "The first three days were kind of difficult – for everybody", however, the majority of the teachers emphasized the positive transition, describing the students as calm, mellow, following directions and paying attention.

The most prominent theme emphasized across all centers and teachers was how well the children who had previously attended Head Start were able to easily re-adjust to the classroom setting. One teacher explained, "You can tell a really big difference in the ones who had been here in the previous year… because they already know what those expectations are… they already knew that they needed to listen, that they needed to wait

their turn, that they don't hit – they remembered the rules that we carried over from last year… even if they hadn't maybe had to follow those kind of rules all summer, they still knew what was expected of them when they came back". All teachers reported the children who had attended preschool the previous year knew the routine and the rules and had an easier time transitioning than the new students.

As they did in the winter break focus group, when asked specifically about changes in student's social-emotional skills such as self-awareness and managing one's emotions, teachers tended to resort to individual examples. They reported social-emotional growth ranged from no change to some growth, based on the individual child. The teachers reported examples of no growth, "She more or less stayed the same, she still gets upset and cries and she's not able to share or take turns… no growth whatsoever" and positive changes, ""He used to be our tantrumer, our crier… he cried a little bit this year, but he's more or less advanced [from before the summer]" and "I feel like she has made progress… her self-control has gotten a little bit better".

The importance of a set schedule and routine was discussed. Given that the students who transitioned well came in already knowing the rules, routines, and expectations, it is important for teachers to emphasis these rules and routines during the transition time for both returning and new students. Due to structural changes (going from half day to a full-day center) one center's schedule was not completely set as the kids transitioned back. The teachers spoke of how this was stressful for them and how the students picked up on the teacher's stress, which in turn made the transition more chaotic. However, once the routine was set, the children "seem to be responding to it" and they had an easier time adjusting once the routine was firmly in place. This speaks to the

importance of having a set routine and schedule in place, if possible, to help the children transition back from school breaks. Additionally, one teacher discussed a strategy she utilizes with returning students to help new students adjust – making them 'leaders" of the classroom: "I tell them… you were here last year, you're my leader now, you need to set that example". Returning students model correct routine- and rule-following behavior for new students, which helps to promote a positive transition and a positive classroom environment for all students.

Similarly to the post-winter break focus group, most teachers reported sending home a packet of academic practice materials over the summer. While one center also sent home books, no activities were sent home that were geared toward social-emotional learning, specifically. Teachers reported discussing social-emotional activity suggestions with parents that included, playgroups, continuing to read to their child, going to the library, participating in the summer reading program at the library, "do something where they're around other kids", "take them out to interact with other kids", "get them involved in social settings", and engaging in conversations as a family (for instance, during mealtimes).

Chapter 5: Discussion

Introduction

In this chapter, the results of the study are summarized and interpreted. Implications of the results are discussed. Limitations of the current study and directions for future research are presented and discussed.

Summary of Results

The first research question and its sub-questions are as follows: Is there a relationship between out-of-school time and preschooler's social-emotional competencies, as measured by teacher ratings? Do social-emotional skills decrease as a result of out-of-school time? Does the length of the school break impact this effect? A repeated measures t-test and planned contrasts were utilized to address these questions. Results of the dependent samples t-test indicated that social-emotional skills increased over summer 2013; however, this increase was not statistically significant. When examined by age, social-emotional skills only increased for the 4.5 year-old age group; for 3.5 and 4.0 year-olds, their social-emotional skills decreased over the summer. Behavioral concerns increased significantly over summer 2013. When examined by age it was revealed that 4.0 and 4.5 year-olds' behavioral concerns increased while 3.5 year olds' behavioral concerns decreased.

Planned contrasts were used to evaluate the change in social-emotional and behavioral concerns scores over winter break and summer 2014. Time was a significant main effect in both models, indicating social-emotional and behavioral concerns changed significantly over the last four time points. Social-emotional skills increased significantly over winter break. They increased over summer break 2014; however, this increase was not statistically significant. When examined by age, social-emotional skills increased over winter break and summer break 2014 for all ages, with the exception of 4.5 year-olds' whose social-emotional skills decreased over summer break 2014. Behavioral concerns decreased significantly over winter and summer break 2014. When examined by age, all ages showed this decrease in behavioral concerns over winter and summer 2014, with the exception of 4.5 year-olds who showed an increase in behavioral concerns over the summer.

Research question two is as follows: Do demographic variables predict this change in social-emotional competence? A repeated measures ANOVA was conducted to determine how participant's gender, age upon entering the study, and number of siblings affect the social-emotional skill and behavioral concerns changes over the summer. Results indicate no significant interactions between time and the independent variables and no significant main effects, indicating the pattern of social-emotional change and behavioral concerns change over the summers occurred similarly for all participants regardless of their gender, age, or number of siblings.

The third research question stated: How does the rate of growth in social-emotional competence during the school year differ from the social-emotional growth rates observed during out-of-school time (e.g., summer and winter breaks)? Learning/change rates were calculated and examined. Students gained 0.66 units of social-emotional skills per month over the 2013-2014 school year and decreased their behavior concerns by 0.65 units per month over this same time frame. Over the summer, students lost an average of 0.25 units per month of social-emotional skills, and increased their behavior concerns by 0.31 units per month. Students demonstrated a 0.09 unit per month loss of social-emotional skills over winter break, while decreasing their behavioral concerns 1.56 units per month.

Additionally, qualitative data from teacher focus groups in January and September 2014 was analyzed and the following themes were noted: 1) teachers thought students transitioned well back to the classroom after winter and summer breaks, 2) teachers consistently reported students who had previously attended a Head Start classroom transitioned easier than new students, 3) returning students knew the routine and schedule of the classroom and were able to transition back into these routines easily, and 4) teachers reported they send home academic learning materials (but not social-emotional learning materials) over school breaks; however, they do speak with parents about ways to increase student's social interactions over school breaks.

Discussion and Implications of Results

When examining the smaller subset data samples, there is not as strong of a pattern initially evident as compared to the analyses utilizing the entire sample means (discussed below). However, examining this data by age at each time point helps to explain these findings. For the pilot sample (pre- and post-summer 2013), social-emotional skills increased over the summer for the 4.5 year-olds. It could be argued that this is a maturation issue – these children are older, so they are gaining more social-emotional skills due to age. This could also be due to the fact that this group of children may have been more likely to have participated in Head Start for multiple years, giving them an advantage over their younger counterparts when transitioning back to the center. As was indicated in the teacher focus groups, students who had previously attended Head Start tended to transition back to the classroom better than their novice counterparts. However, these older groups of students (aged 4.0 and 4.5) also demonstrated a behavioral concerns increase over summer 2013. This increase in behavioral concerns could be related to a lack of structure, rules, or formal summer programming, as previously discussed (Carnegie Corporation of New York, 1992; Marshall et al., 1997). However, the 4.5 year-olds demonstrated not only an increase in their behavioral concerns, but also an increase in their social-emotional skills. One would expect that if these students demonstrated more behavioral concerns, their social-emotional skills would remain constant, or even decrease. This concurrent increase in both behavioral concerns and social-emotional skills for this age group is unexpected, and is a possible area of further exploration for future studies. For the youngest students (aged 3.5), their social-emotional skills and behavioral concerns scores trend in the opposite direction of

the overall pilot sample (both social-emotional skills and behavioral concerns decrease over the summer). This reiterates the importance of examining these results by age group. Researchers should consider examining these ages by 6-month intervals as was done in this study, to address the rapid maturation of students at these ages.

When examining pre- and post-winter break by age, all students demonstrated an increase in his or her social-emotional skills, regardless of age. This may be due to the fact that the winter break was much shorter in length (around 3 weeks), and students may be presented with more natural social opportunities over the holidays, giving them opportunities to practice their social-emotional skills with family and peers. Additionally, behavioral concerns decreased significantly over winter break for all ages, which was consistent with results from the teacher focus groups conducted in January 2014. Themes from the focus groups indicate teachers were impressed and surprised by how smooth the transition back to school went after winter break. Teachers reported that they expected the transition to be difficult; however, the majority of the students did not have any difficulty readjusting to the classroom setting. Again, the shorter length of this break may have protected against student's skill loss and made it easier for them to remember the classroom routine and rules. Additionally, the students had already experienced a whole semester worth of preschool instruction and routine (and for some students, a whole school year plus a semester). Therefore this may have further protected them against loss of social-emotional skills during this transition.

Social-emotional skills increased over summer break 2014 for all ages, with the exception of 4.5 year-olds. Their social-emotional skills decreased over summer break 2014. Similarly, behavioral concerns decreased for all age groups over summer break 2014, except for 4.5 year-olds. They demonstrated an increase in behavioral concerns. When both summers are compared, students in the 4.5 year-old age group showed an increase in social-emotional skills over summer 2013 and a decrease over summer 2014; however, they consistently demonstrate increases in behavioral concerns over both summers. This is unexpected, as this oldest age group would be expected to be the most familiar with rules and routines of Head Start, especially if they have been in the program the previous year. Future research exploring the patterns of change in social-emotional skills and behavioral concerns that relate to summer breaks should be examined.

When examining demographic variables (gender, age upon entering the study, and number of siblings) and their effect upon the social-emotional and behavioral changes over the two summers combined, it was determined none of these variables significantly explained the change. Unfortunately disability status and participation in summer programming were excluded from this analysis due to severely unequal groups. These difficulties may be remedied by a future study with a larger and more diverse sample.

Utilizing the total sample data ($n = 99$) for the computation of learning/change rates allowed for a broader view of the data across all time points. As was previously discussed, in the total sample students gained 0.66 units of social-emotional learning per month over the school year, and simultaneously decreased behavioral concerns by 0.65 units per month. Over summer break, students lost an average of 0.25 units of social-emotional skills per month, and increased behavior concerns 0.31 units per month.

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Therefore, utilizing these figures, it can be hypothesized that students who attended Head Start preschool may benefit from increased social-emotional skills and decreased behavioral concerns. It appears that Head Start provides these significant benefits for its participants, and these benefits may lead to an easier transition into kindergarten compared to students who did not attend preschool. The students who did not attend preschool may not have experienced as many gains in social-emotional learning, and may begin kindergarten with more behavioral concerns due to the lack of familiarity with school/classroom settings and expectations.

The results of this study speak to the importance of Head Start, and preschool programming in general. This is supported by not only the learning change rates but also the means from the total sample at each time point support this as well. Figure 8 illustrates the following pattern: social-emotional skills decrease over the first summer, increase over the school year (with a slight decrease over winter break), and continue to increase over the second summer. Behavior concerns increase over the first summer, decrease over the school year (including winter break), and continue to decrease over the second summer. This suggests that the longer the students spend in Head Start, the more their social-emotional skills increase and the more their behavioral concerns decrease. This supports that exposure to preschool programming is important in building school-readiness skills. School readiness skills consist of more than just pre-academics; social-emotional learning and appropriate behavior are also important pieces (Denham, 2007). As previously discussed, social-emotional competency has been consistently linked to positive outcomes across the lifespan including academic achievement, positive social/peer and behavioral outcomes, and mental health (Durlak et al., 2011). Students

begin to engage in social-emotional learning at a very young age, and this learning primarily takes place in the school classroom (Durlak et al., 2011). In addition to pre-academic skills, students are provided with a plethora of social experiences and social-emotional learning opportunities in preschool. Students who have attended preschool are familiar with school day routine and acceptable versus non-acceptable behaviors. Additionally, attending more than one year of preschool may be even more beneficial because the students can experience the transition back to the classroom from summer break. These reflections are supported by the analysis of the overall sample means and the examination of the learning and change rates.

There are many important implications of this study. Foremost, the results provide evidence that Head Start is a beneficial program for preschool students. For this study, the latter time points demonstrated greater gains in social-emotional competence and greater decreases in behavior concerns when compared to the initial time points. This may indicate that the longer students are exposed to preschool programming, the more they will demonstrate increases in social-emotional skills and decreases in behavior concerns. Preschool can teach children social-emotional skills directly through lessons and instruction, and also indirectly by providing them with opportunities for peer socialization and interaction. Preschool also provides students with experiences of a classroom schedule and routine and acceptable school behaviors. Having these skills in place before the transition to kindergarten may make for an easier transition for families, teachers, and students alike. By not attending preschool, students may be starting kindergarten at a disadvantage, as their social-emotional skill level may be much lower than their peers who participated in preschool. Research has demonstrated that the

connection between lack of social-emotional competence and academic difficulties (Fantuzzo et al., 2007; Merrell & Bailey 2008). Furthermore, this disadvantage may also manifest itself in behavioral and social/peer difficulties (Sklad et al., 2012) as well, setting the child up for further struggles in school.

Limitations and Future Directions

There are limitations within this study that should be addressed in future research. Foremost, a larger sample size may not only increase the power of the analyses, but may also assist when exploring which demographic variables predict social-emotional and behavior skill change during out-of-school time. This sample was limited to parents who consented to participate at three Head Start centers. Many factors affected the recruitment of participants for this study, including difficulty reaching parents due to children utilizing school buses for transportation and difficulty in receiving back study materials that were sent home. While the Head Start teachers and staff were very helpful in the recruitment of participants, it was very challenging to obtain the final sample size. Furthermore, the retention of participants in this study was also challenging due to the transient nature of this population (Cohen & Wardrip, 2011). The most common reasons cited for participants leaving the current study as reported by center case managers were "unknown" followed by "moved (out of area, to another center)" and "transportation issue". Analyses revealed no significant differences between the mean TPF and BC *T*-scores of participants who remained in the study versus the participants that left the study. Retention of participations was also challenging due to structural changes within the classrooms such as teachers on maternity leave, retiring, or leaving the profession.

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Future researchers should be aware of these challenges, and obtain the necessary resources to address them. Future studies with larger sample sizes should consider analyses utilizing the nested structure of students within Head Start centers or classrooms.

The limitation of testing was briefly discussed under the internal validity section. Having teachers complete the same instrument six times within the study may have inadvertently caused inflated scores. Teachers become more familiar with the instrument so they may look for or notice an increased number of social-emotional skills or behaviors and this may be reflected in their ratings. Alternatively, the teacher's ratings may have become more accurate as they became more familiar with the types of items on the instrument and may have better been able to identify and evaluate these skills and behaviors. A possible remedy to this potential limitation would be to provide the instrument to the teachers prior to the beginning of the study. This way they would have time to familiarize themselves with the items and what to look for in the students. This may help to eliminate testing differences between ratings at the first time point and subsequent ratings.

An additional limitation is studying preschool-aged children. Development occurs very rapidly at this age (Zero to Three, 2010), therefore, maturation effects are a concern. This study addressed some of these concerns by examining the data by 6-month age intervals at each time point. However, as previously discussed, children begin to engage in social-emotional learning at a very young age, and this learning primarily takes place in the school classroom (Durlak et al., 2011), making the preschool population a positive choice for this study. The lack of previous research on social-emotional skill loss during

out-of-school time and the exploratory nature of this study indicates this topic has not been examined with other age groups. Future studies should expand upon these preschool results but could also focus on these summer skill loss effects at the elementary and secondary levels.

Finally, it may be beneficial to have a better understanding of the participant's experiences during the school breaks. The parent summer surveys were utilized in this study; however, this survey provided minimal information such as how the child was cared for over the summer. Future research may benefit from a more in-depth examination of these out-of-school time experiences, which may increase our understanding of social-emotional skill loss over school breaks.

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Appendix A: DECA-P2

Devereux Early Childhood Assessment for Preschoolers
Second Edition (DECA-P2)
(for children ages 3 through 5 years)

Paul A. LeBuffe ■ Jack A. Naglieri

Child's Name: _____ Gender: _____ Date of Birth: _____

Program/Site: _____ Classroom/Group: _____ Age: _____

Person Completing this Form: _____ Relationship to Child: _____ Date of Rating: _____

This form describes a number of behaviors seen in some young children. Read the statements that follow the phrase: *During the past 4 weeks, how often did the child…* and place a check mark in the box underneath the word that tells how often you saw the behavior. Please answer each question carefully. There are no right or wrong answers. If you wish to change your answer, put an ✗ through it and fill in your new choice as shown to the right. Please do not skip any items.

Item# During the past 4 weeks, how often did the child…	Never ✓	Rarely ✓	Occasionally ✓	Frequently ✓	Very Frequently ✓
1. act in a way that made adults smile or show interest in him/her?	☐	☐	☐	☐	☐
2. listen to or respect others?	☐	☐	☐	☐	☐
3. control his/her anger?	☐	☐	☐	☐	☐
4. seem sad or unemotional at a happy occasion?	☐	☐	☐	☐	☐
5. show confidence in his/her abilities (for instance, say "I can do it!")?	☐	☐	☐	☐	☐
6. have a temper tantrum?	☐	☐	☐	☐	☐
7. keep trying when unsuccessful (show persistence)?	☐	☐	☐	☐	☐
8. seem uninterested in other children or adults?	☐	☐	☐	☐	☐
9. use obscene gestures or offensive language?	☐	☐	☐	☐	☐
10. try different ways to solve a problem?	☐	☐	☐	☐	☐
11. seem happy or excited to see his/her parent or guardian?	☐	☐	☐	☐	☐
12. destroy or damage property?	☐	☐	☐	☐	☐
13. try or ask to try new things or activities?	☐	☐	☐	☐	☐
14. show affection for familiar adults?	☐	☐	☐	☐	☐
15. start or organize play with other children?	☐	☐	☐	☐	☐
16. show patience?	☐	☐	☐	☐	☐
17. ask adults to play with or read to him/her?	☐	☐	☐	☐	☐
18. have a short attention span (difficulty concentrating)?	☐	☐	☐	☐	☐
19. share with other children?	☐	☐	☐	☐	☐
20. handle frustration well?	☐	☐	☐	☐	☐
21. fight with other children?	☐	☐	☐	☐	☐
22. become upset or cry easily?	☐	☐	☐	☐	☐
23. show an interest in learning new things?	☐	☐	☐	☐	☐
24. trust familiar adults and believe what they say?	☐	☐	☐	☐	☐
25. accept another choice when his/her first choice was not available?	☐	☐	☐	☐	☐
26. seek help from children/adults when necessary?	☐	☐	☐	☐	☐
27. hurt others with actions or words?	☐	☐	☐	☐	☐
28. cooperate with others?	☐	☐	☐	☐	☐
29. calm himself/herself down?	☐	☐	☐	☐	☐
30. get easily distracted?	☐	☐	☐	☐	☐
31. make decisions for himself/herself?	☐	☐	☐	☐	☐
32. appear happy when playing with others?	☐	☐	☐	☐	☐
33. choose to do a task that was hard for him/her?	☐	☐	☐	☐	☐
34. look forward to activities at home or school (for instance, birthdays or trips)?	☐	☐	☐	☐	☐
35. touch children or adults in a way that you thought was inappropriate?	☐	☐	☐	☐	☐
36. show a preference for a certain adult, teacher, or parent?	☐	☐	☐	☐	☐
37. play well with others?	☐	☐	☐	☐	☐
38. remember important information?	☐	☐	☐	☐	☐

Kaplan #TK
1-800-number TK?

Appendix B: Summer Parent Survey (Pre)

Parent/Guardian Pre-Summer Survey

Your Child's Name _____

1) How often will your child be cared for in these settings during summer break?

Center daycare with other children
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

In-home daycare with other children
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

At home with parent
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

Relative (Grandparent, Aunt/Uncle, Sibling)
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

Other caregiver/Babysitter (non-relative)
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

Other: _____
○ Not at All
○ 1-2 days per week
○ 3-4 days per week
○ 5-6 days per week
○ Everyday

2) How many other children do you anticipate being with your child in this setting?
○ My child was the only child
○ 1 to 3 other children
○ 4 to 6 other children
○ More than 6 children

3) Approximately how old will the other children be who are with your child? Please record the number of children you think will be in each age group. Do not include your child.

____ Does not apply; my child will be the only child
____ Birth to 3 months
____ 3 to 6 months
____ 6 to 9 months
____ 9 to 12 months
____ 1 year

____ 2 to 3 years
____ 4 to 6 years
____ 7 to 10 years
____ 11 to 13 years
____ 14 to 18 years

4) On average, each week, how often do you expect your child will participate in the following activities during the summer?

Play with other children
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Play alone
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Watch TV/movies
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Read/Look at books with caregiver
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Play video games
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Go to the community center
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Go to the store/mall/ran errands with caregiver
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Practice school skills (letters, colors, writing their name)
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Go to the library
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Play games on computer/cell phone
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Surf the internet
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Other: _____
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Other: _____
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Other: _____
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Summer Parent Survey (Post)

Parent/Guardian Post-Summer Survey

Your Child's Name _____

1) How was your child cared for in the following settings during this past summer?

Center daycare with other children
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

In-home daycare with other children
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

At home with parent
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Relative (Grandparent, Aunt/Uncle, Sibling)
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Other caregiver/Babysitter (non-relative)
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Other: _____
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

2) How many other children was your child with in this setting?
- ○ My child was the only child
- ○ 1 to 3 other children
- ○ 4 to 6 other children
- ○ More than 6 children

3) How old were the other children your child was with in this setting? Please record how many children were in each age group. Do not include your child.

____ Does not apply; my child was the only child
____ Birth to 3 months
____ 3 to 6 months
____ 6 to 9 months
____ 9 to 12 months
____ 1 year

____ 2 to 3 years
____ 4 to 6 years
____ 7 to 10 years
____ 11 to 13 years
____ 14 to 18 years

4) On average, each week, how often did your child participate in the following activities during the summer?

Played with other children
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Played alone
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Watched TV/movies
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Read/Looked at books with caregiver
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Played video games
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Went to the community center
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Went to the store/mall/ran errands with caregiver
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Practiced school skills (letters, colors, writing their name)
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Went to the library
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Played games on computer/cell phone
- ○ Not at All
- ○ 1-2 days per week
- ○ 3-4 days per week
- ○ 5-6 days per week
- ○ Everyday

Surfed the internet
- ◯ Not at All
- ◯ 1-2 days per week
- ◯ 3-4 days per week
- ◯ 5-6 days per week
- ◯ Everyday

Other: _____
- ◯ Not at All
- ◯ 1-2 days per week
- ◯ 3-4 days per week
- ◯ 5-6 days per week
- ◯ Everyday

Other: _____
- ◯ Not at All
- ◯ 1-2 days per week
- ◯ 3-4 days per week
- ◯ 5-6 days per week
- ◯ Everyday

Other: _____
- ◯ Not at All
- ◯ 1-2 days per week
- ◯ 3-4 days per week
- ◯ 5-6 days per week
- ◯ Everyday

Appendix C: Teacher Focus Group Prompts

Thinking about your returning students…

1. Describe your class' transition from summer (or winter break) back to the Head
   Start classroom.

   a. Did you notice any behavioral changes (positive or negative) in the
      children during this transition?

   b. What other changes did you observe?

   c. For those students who had a more difficult time re-adjusting, why do you
      think this was the case?

   d. For those students who had an easier time re-adjusting, why do you think
      this was the case?

2. What do you do as a teacher to make this an easier transition?

3. Think specifically about the class' social-emotional skills as a whole. Did you see
   a change in their social-emotional skills?

   a. Describe this change.

4. Thinking about these specific skills (with in a preschool developmental context),
   did you observe a change in these skills after the students returned from break?

   a. Self-awareness

   b. Self-management

   c. Social awareness

      d. Relationship skills

      e. Responsible decision-making

5. Do you have any suggestions for activities preschoolers and their families can engage in over school breaks to promote social-emotional learning?