

PERSPECTIVES OF PRESCHOOL EDUCATORS ON EARLY CHILDHOOD
EDUCATION'S IMPACT AND ROLE ON SCHOOL READINESS AND THE
SOCIAL-EMOTIONAL DEVELOPMENT OF CHILDREN

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Abstract

of

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This study examined the factors that contribute to the construct of school readiness and the relevant life-outcomes of preschool education from the perspectives of early childhood educators. A non-probability, purposive sample of 34 preschool educators was used to collect data with a questionnaire as the data collection tool. The respondents were asked to indicate their conceptions of school readiness and its perceived impact on a continuum of academic and socio-emotional paradigms. The findings indicate that in addition to the importance of preparing children for academic work, the study participants perceive the construct of school readiness to include an emphasis on the development of “the whole child.” The impact of preschool education is perceived by the respondents to be a continually unfolding process of outcomes extending into adulthood. The study findings also identified a further need to clearly define the goals and objectives of preschool education with a focus on retaining a conception of the preschool

environment, with developmentally appropriate practices and instruction creating that structure. Statistically significant moderate correlations were noted [$r(34) = .456, p < .01$] between the importance of social and emotional competencies development as a contributor to life outcomes and the importance of appropriate expression of emotions for successful task management. Mean difference in score on approach to preschool education between the two groups “traditional academic” and “whole child” was noticed. However, overall responses indicate an agreement on the importance of pre-literacy and pre-numeracy skills between educators with these two group classifications. Recommendations from the study include the need for preschool curriculums to maintain an equitable balance between assessments oriented academic milestones and enriching socio-emotional development based activities.

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Chapter 1

STATEMENT OF THE PROBLEM

The idea that children who attend preschool benefit in multiple domains throughout the lifespan has been gaining wider popular distribution and even greater acceptance within legislative circles. What remains a complex and potentially polarizing discussion concerns how best to deliver preschool instruction and toward what end—meaning, just what are the specific skills and competencies preschoolers will need to develop for both academic and life success? For Early Childhood Education (ECE) researchers and practitioners, this question falls under the general heading of school readiness, and as preschools become more recognized for playing a significant role in determining positive outcomes for students of all grade levels, the concept of preparing a child for school continues to be even more critically evaluated.

Therefore, a large part of the current interest in school readiness stems from continued efforts to improve school accountability (e.g. Common Core Standards, national testing at 3rd grade), measures which have re-focused attention on children's early academic work and development. Consequently, the push for schools to demonstrate academic achievement has been steadily filtering down to the early grades, where expectations for children have increased substantially, such that academic skill levels for children entering kindergarten have become a central issue within the concept of school readiness. While ECE researchers, practitioners, and legislators may all agree that preschool attendance provides measurable benefit to children, there is less agreement as to the very nature and purpose of preschool education, including how best to measure

those outcomes. More specifically, is the need to demonstrate academic skills—the traditional domain of K - 12 learning—influencing the content and delivery of preschool education?

For ECE researchers, the concept of school readiness holds tremendous value as it leads directly to elements reflecting both individual and greater social worth. In other words, for ECE researchers, preschool education represents gains that extend far beyond the cognitive skills needed for successful academic work, including (but not limited to), emotional self-regulation, adaptive problem-solving, effective communication, and the ability to develop and sustain relationships. While ECE researchers certainly value the development of cognitive skills and the importance of demonstrating academic achievement throughout the grade levels, there is also an understanding in the ECE community that preschool also contributes markedly to a child's social-emotional development, a domain that many ECE researchers believe critically influences cognitive development among other life outcomes.

As the benefits of preschool continue to be recognized, and both state- and federal-preschool programs expand, what is meant by “school readiness” will continue to impact and shape how preschool education is conceived and delivered. Subsequently, preschool educators and practitioners, those in direct contact with children in preschool and daycare programs, will have some of the greatest influence on the direction and nature of preschool education; therefore, their perspectives and practices, independent of ECE researchers or legislators, are of vital interest to the growth and success of both preschool children and the programs that serve them. How preschool educators interpret

the skills and competencies needed to succeed in kindergarten and in life will necessarily affect the continuing evolution of preschool programs and their relationship to K – 12 institutions. The current research documents the literature surrounding the traditions and principles of Early Childhood Education, and attempts to access the perspectives of preschool teachers as professionals implementing the multiple factors within the construct of school readiness.

Background of the Problem

Inherent to the problem of defining school readiness is the traditionally perceived differences between preschool programs and K-12 schooling, in which preschool is seen to center around fostering and developing children's socio-emotional learning, while the elementary grades have concentrated on the more cognitive skills associated with academic learning. As many ECE researchers have noted, these fundamental differences often cause educators from both systems to view the primary purposes and objectives of “school” and “pre-school” as separate from one another, when not altogether different. Halpern succinctly, if graphically, describes part of the difficulty ECE educators have in meeting the increasing expectations of academically oriented K-12 “institutions:”

Children are not raw human capital to be carefully developed through schooling to meet the demands of a globalized labor force. Americans urgently have to rethink how they wish to account for children, the virtues that are important to nurture, and the role of adult institutions in the process (2013, p. 2).

In many respects, what Halpern observes here points toward one of the primary problems surrounding a conceptual, much less operational, definition of school readiness—namely, the hesitancy of the ECE community to define preschool objectives and purposes as specifically “school” readiness when ECE goals are structured to include broader and more enduring effects *in addition to* academic success.

In support of this broader conception of school readiness, many economists have noted longitudinal studies following the progress of children who have attended preschool programs throughout the life span (i.e. The Perry Preschool Project, The Abecedarian Project), and concluded that positive outcomes from preschool include reductions in violence, crime, teen pregnancy, substance abuse, and poverty—gains that reflect both individual and societal benefits (Heckman, J. 2008; Gorey, K.M., 2001). To a large degree, ECE researchers have observed that these positive individual and societal outcomes demonstrate children's abilities in social-emotional competence, skills that when fostered early in life contribute to and enhance subsequent cognitive development among other positive factors related to life success (McCabe, P. C., & Altamura, M., 2011). Essentially, the traditional preschool curriculum has always valued the development of these socio-emotional skills, not in deference to cognitive development, but as a necessary and vital building block in what is a hierarchy of skill development (Knudsen, E.I., Heckman, J.J., Cameron, J.L., Shonkoff, J.P., 2006).

Therefore, what many researchers in the ECE community wish to preserve in the definition of school readiness is the acknowledgment and understanding that without first demonstrating successful social-emotional competencies, children will be far less able to

develop the cognitive tools of higher learning required for academic work. In other words, as pressure mounts in the elementary grades for students to demonstrate elevated test scores and increased academic achievement, a push for even greater cognitive development in preschool—at the risk of a reduction in more developmentally appropriate socio-emotional skill building—may, in the long-term, prove detrimental to both individual children's development and overall societal benefit as well.

Although the current literature in the ECE field strongly supports preschool curriculums that foster *both* social-emotional and cognitive skill development, there is considerably less research concentrating solely on the perspectives of preschool educators with regard to an operational definition of school readiness. The recent educational climate indicates there more elementary schools and districts seeking to align themselves with preschools (commonly referred to as PreK- 3), and while this integration may have benefits for both children and schools, a question remains as to if, and how, these changes will impact preschool curriculums, objectives, and purposes. The issue of school readiness, then, reflects fundamental principles that have governed preschool instruction for generations, and preschool educators' perspectives regarding this critical concept may indicate future curriculum and policy decisions that could resonate within and beyond the ECE community, both in the near and distant future.

Statement of the Research Problem

The wealth of information from ECE researchers has established there are multiple factors that contribute to the concept of school readiness, a condition that makes a conceptual definition of school readiness difficult to declare conclusively; instead,

school readiness is more usefully considered as a locally-defined construct (Graue, M.E., Kroeger, J. & Prager, D., 2001). The current research seeks the input of preschool educators, a group whose perspectives are seldom solicited directly in ECE research, and asks two essential questions: What are the specific professional perspectives of preschool teachers regarding the impact and role of preschool education on school readiness and related factors? What are the perspectives of preschool educators on the potential for translating their understanding of school readiness into both positive education and life outcomes from preschool instruction?

Study purpose. The primary purpose of the study is to access preschool educators' professional perspectives on school readiness. Currently, there is a gap in the ECE literature in which the voices of preschool teachers and direct practitioners in early learning programs are seldom heard. More frequently the decisions of policy-makers and, to a somewhat lesser degree, ECE researchers, define the scope of Early Childhood Education policies. As access to preschool programs continues to expand, both state-wide and nationally, it is imperative to utilize the perspectives of those working directly with children, whose experience and practical knowledge most directly influences the delivery and practice of preschool education.

Theoretical frameworks. There are several key theoretical frameworks underlying the preparation and need for successful preschool outcomes; the very nature of early interventions necessarily suggests there are multiple and complex processes that affect the growth and development of children on several individual, social, and societal levels. In this sense, ECE may reflect nearly all the major theories of social work

practice at one time or another, including key elements from Systems Theory, Social Learning Theory, Conflict Theory, and Psychodynamic Theory. In addition, there are obvious contributions from Developmental Theories that combine not only traditional theories of child development, such as those of Piaget and Erikson, but also utilize neurobiological, biological, psychological, and even economic evidence-based research to provide a context that understands human development from inherently diverse and inter-related perspectives. Part of the difficulty, then, in discussing the outcomes of preschool education concerns this multi-faceted aspect of human growth and development, in which elements from a child's biology, her upbringing, her culture, and her community each affect her life outcome. However, attention to the theoretical frameworks or practice models used to understand these outcomes plays a critical role in assessing how individuals either stagnate or thrive, and helps to develop more effective individual and community interventions and social policies.

For instance, Social Learning Theory contributes heavily to all ECE efforts as it states that human behavior *is learned* as individuals interact with their environment; that problem behaviors are maintained by positive or negative reinforcement; that conditioning and modeling may be used to both foster desirable behaviors and decrease undesirable behaviors; and that individual thoughts and cognitions influence both behavior and perceptions of self-efficacy (Bandura, A., 1971). Preschool education (indeed all education) is steeped in this basic understanding of human development, but the additional knowledge provided by neuroscience further reinforces this idea of the preschool years as a time when children are most susceptible to either positive or

negative influences upon learning and development—meaning early interventions have a greater potential to influence future outcomes (this concept, among other theories introduced here, will be examined in much greater detail in Chapter 2). In terms of school readiness, learning at the preschool level, then, influences the potential to acquire fundamental academic and relationship skills, the very tools identified in Social Learning Theory that are needed for successful school and life outcomes.

Similarly, Psychodynamic Theory maintains that emotions play a critical role in human behavior, that the presence of fundamental needs and drives influence emotions and motivate behavior; more specifically, early childhood experiences are significantly related to the patterning of an individual's emotions, and therefore central to the problems (or successes) encountered throughout the life span. Should individuals develop without appropriate resources or influences, they may fail to develop the socio-emotional skills necessary to negotiate relationships and effectively manage overwhelming internal or external emotional demands. With respect to Psychodynamic Theory, one of the principle aims of ECE has traditionally been to foster the acquisition of these socio-emotional skills, such that children may develop effective emotional regulation skills that contribute to building successful interpersonal relationships and overall feelings of self-efficacy.

Psychodynamic Theory, then, provides the supporting framework that recognizes the need for children to feel safe and protected as they explore their environment, learn to relate to peers, develop attachments, and process multitudes of positive and negative emotional experiences. A particularly important related concept that directly concerns

ECE programs is the evidence of the hierarchical structure of human brain development, which states that individual neuronal growth proceeds along a “bottom-up” course (Knudsen, E.I., Heckman, J.J., Cameron, J.L., Shonkoff, J.P., 2006)—meaning that development of higher brain functions, such as those associated with cognitive ability, depend upon the successful development of the lower brain functions associated with feelings of security, safety, and self-worth. Though this concept is examined more thoroughly in Chapter 2, it is significant to note that individuals whose early development takes place *without* feelings of security (e.g. a comforting environment; parents who are responsive to the child's needs; proper nutrition, education, and health care) frequently develop low self-esteem and images of negative self-worth, feelings that are inherent within groups who experience oppression and other forms of social injustice.

Subsequently, Conflict Theory also influences the aims and principles of ECE in that it recognizes power in society is unequally distributed, that some groups not only dominate others but work to maintain their advantage and interests at the expense of other less dominant groups. By providing equal *access* to a valuable resource, state and federal preschool programs attempt to address issues of inequality in society. Children living in poverty are frequently without access to many resources, including effective ECE programs and preschool education, and are therefore at greater risk for developing low self-esteem and feelings of negative self-worth. These individual attributes have been shown to contribute to and maintain the social and political inequality characteristic of oppressed groups.

Wider distribution and access to preschool education and ECE programs reflects

this understanding of Conflict Theory. Groups with less power and influence naturally have less access to valuable resources and are then subject to the manipulation and control of dominant groups in a struggle for limited resources. However, when children *themselves* are understood to be both a resource and a public good in society, protecting and fostering their continued growth and development becomes central to the overall health of the society. In other words, while providing access to preschool education represents an effort to balance social injustice and end the oppression of less-dominant groups, it is just as importantly a critical attempt to protect and develop *children*--a vital resource necessary for the survival of the society as a whole.

In this sense, the efforts behind school readiness and preschool education are also founded on the principles of Systems Theory, which states that the reciprocal relationships between individuals, families, groups, and communities are mutually influencing factors within an environment. That is, the elements within an individual necessarily influence her relationship to her family, her culture, and community, and that the influence is inherently bidirectional; an individual's family, culture, and community have an equal influence upon her as well. Therefore, the investment (or lack of investment) in an individual will necessarily have an effect on that individual's concentric spheres of influence. For instance, a child with access to multiple resources—to parents who provide nourishment and comfort, schools that provide education and training, and a community that offers security and opportunity—becomes herself a positive an integral element within that system, contributing to and sustaining the different components of family and community within the system.

Conversely, an individual without access to these resources is not only unable to contribute in meaningful ways to her community, but all too often faces sincere difficulty simply surviving in her community. Substantial research demonstrates that at-risk children who *do not attend* preschool or some form of ECE program are more likely than children who do attend preschool to fail to finish high school, become parents in their teens, develop substance abuse problems, become either perpetrators or victims of violence, or enter the criminal justice system, among many other significant social problems. ECE programs, therefore, represent more than a much needed resource for children and their families; they ultimately signify the health and well-being of entire communities and the greater society as a whole. Much like an ecosystem that can be irrevocably damaged with the loss of a single component, the value of preschool education is felt outward in concentric circles that reverberate from the positive outcomes of a single child.

Definition of Terms. School Readiness -- Conceptually, school readiness refers to the multiple social, emotional, and cognitive skills, both taught and acquired during the preschool years (typically ages 3-5), that signify a child is “ready” for the academic and social demands of kindergarten and successive schooling and life experiences. However, the current research is an attempt to recognize, just as the National Association for the Education of Young Children (NAEYC) has, “...that children’s early learning and development is multidimensional, complex, and influenced by individual, cultural, and contextual variation” (NAEYC, 2009).

Social-Emotional or Socio-emotional Skills -- The knowledge, attitudes and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions; accordingly, the Collaborative for Academic, Social, and Emotional Learning (CASEL) identifies five “core competencies” associated with social-emotional skills--self awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2013). With respect to the current research, it should be noted that socio-emotional skills are also referenced as “non-cognitive” skills to further identify differences between socio-emotional skills and cognitive skills.

Cognitive Skills -- This is an umbrella term that refers to the ability to process information, and according to Bloom's taxonomy there are six essential categories for relating to or storing information—knowledge, comprehension, application, analysis, synthesis, and evaluation. For the purposes of this research as it pertains to school readiness and individual life outcomes, cognitive skills also chiefly reflect an individual's ability to learn and assimilate new information; these skills, therefore, are typically measured throughout a child's education as a prerequisite for advancing to higher levels of schooling.

Preschool or Early Childhood Education (ECE) Programs -- The Office of Head Start offers a fundamental definition of the aims and objectives of preschool and ECE programs (although the federal Head Start's ECE programs offer services from “birth to age five,” most private and state-funded preschool programs serve children from 3-5 years of age): “Head Start programs promote school readiness by enhancing the social

and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children and families. They engage parents in their children's learning and help them in making progress toward their educational, literacy and employment goals” (OHS, 2005). Additionally, an accredited preschool or ECE program employs instructors and aides who have completed a state-licensed credential or higher degree in Early Childhood Education or Child Development. A “licensed preschool or ECE program” also indicates that the facility has a state license, ensuring the program meets minimum state health and safety standards (which vary from state to state). The National Association for the Education of Young Children (NAEYC) offers a broad and more thorough definition of the “Standards for ECE programs” (See <http://www.naeyc.org/files/naeyc/Position%20Statement%20EC%20Standards.pdf>, NAEYC, 2005).

Preschool Instructors -- Educators who have a completed a minimum of a Child Development Associate (CDA) certificate in Early Childhood Education or Child Development; however, all preschool instructors employed by either the M.I.N.D. Institute or First Five of Sacramento County (those surveyed for this study) have earned a baccalaureate, master's, or Ph.d degree in Early Childhood Education.

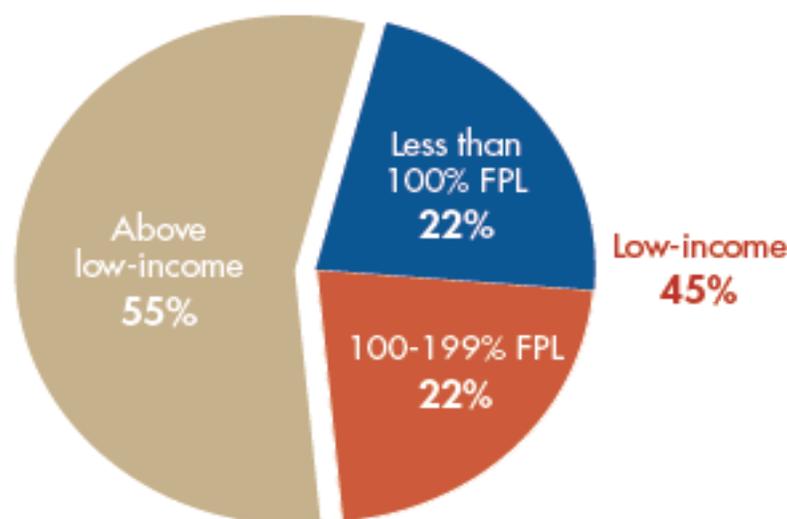
Assumptions. This project assumes that preschool educators are the best equipped to deliver ECE learning and school readiness to preschool children, meaning educators who have a minimum of a Child Development Associate (CDA) certificate, baccalaureate, master's, or Ph.d degree in Early Childhood Education. Even a cross-sectional survey such as this can offer information about the salient factors regarding

school readiness. School Readiness factors are vital to examine to understand the need to create curriculums that most effectively foster children's growth and development. In this respect, there is also the assumption that preschool education is an investment in children as both an individual and a public good.

Social work research justification. Preschool and ECE programs specifically address a vast number of the core values, principles, and objectives of social work, including the primary mission of social work “...to enhance human wellbeing, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty” (NASW, 2009). As an early intervention, ECE programs align with the fundamental purposes of social work—to give “attention to the environmental forces that create, contribute to, and address problems in living” (NASW, 2009). In this sense, ECE's direct focus on the basic needs of every child represents an inherent respect for the dignity and worth of every individual, as well as a challenge to ongoing social injustice, both core values of social work. By their very nature children are a vulnerable group, dependent on their parents and the community surrounding them for not only physical nourishment, but vital emotional and psychological support as well. One of social work's primary duties, therefore, is to see that children have their basic needs met and are not unfairly denied access to valuable resources.

Currently, over 20% of children in the U.S. live below the poverty line (16 million, or 22%) and nearly half live in low-income families (45%, at/or below 200% of the Federal Poverty Line) according to the National Center for Children in Poverty (NCCP, 2011, See Figure 1. below). What these figures suggest is that many children

Children by family income, 2011



Percentages may not add to 100 due to rounding.

© National Center for Children in Poverty (www.nccp.org)
 Basic Facts About Low-Income Children: Children Under 18 Years, 2011

Figure 1. Children by Family Income.

in the U.S. do not have sufficient resources to prepare them for the demands of school. Historically, the federal Head Start program, the first federally funded preschool program, was purposefully initiated in 1965 as part of president Johnson's "War on Poverty." The greater implication being that income inequality in the U.S. not only presents children with distinct disadvantages with regards to future success in school, but, as many economic and education scholars have argued for decades, it perpetuates existing social injustice by limiting access to the education and resources that improve outcomes throughout the life span. Therefore, because positive outcomes from ECE programs and interventions have been long associated with individual academic and life success (Heckman, J. J., 2008; Schultz, B., Richardson, R., Barber, C., & Wilcox, D.,

2011), social workers have a direct interest in social programs and policies that bolster early childhood development (Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., & Hill, K.G., 1999; Smith, S., Lewis, T. J., & Stormont, M., 2011; Voegler-Lee, M., Kupersmidt, J., Field, S., & Willoughby, M., 2012).

In this context, research that advances ECE objectives fundamentally coincides with social work principles and specifically addresses two essential core values of social work—human welfare and social capital. Beyond cultivating children's individual physical, psychological, and emotional wellbeing, ECE learning represents *an investment* in human and social capital, one that many nations outside the U.S. have accepted for generations as an interest in the “public good.”

Public funding for early childhood education and care in European and Nordic countries reflects a common view that such services constitute a public good by offering socialization experiences to children and preparing them for school and later life (Waldfogel, 2001, in Conley, A., 2010, p. 174).

Therefore, what Conley and many other social work researchers have identified is that interventions *early* in the life course serve to decrease the spread of social problems by providing valuable resources and education to children that will continue to positively affect their growth and development as they age. This investment in each child, then, generates significant social capital, as children build on this early success in school, cultivate effective relationships with peers and family, and finally contribute to their community—as opposed to not receiving early interventions and learning maladaptive

behaviors which instead add to more complex and enduring social problems. By including and collaborating with ECE programs, social work researchers may increase their scope of practice through creating and sustaining interventions *earlier* in the life course that more effectively address a multitude of social problems, such as violence, crime, substance abuse, unemployment, high school dropout rates, and teen pregnancy—problems social work has traditionally attacked *later* in the life course, at far greater social and economic costs, and with arguably limited positive outcomes.

Study limitations. This study is not designed to isolate one aspect of school readiness and declare that principle or facet of a child's education to be inherently more significant than another. Rather the study is an invitation to include a group that is often under-utilized in the creation and implementation of educational and social policy—the professionals who work directly with children—and solicit their specific perspectives on the nature of school readiness and the broader aims and objectives of preschool education. Because this study is utilizing both a smaller ($n < 50$), as well as a non-probability, purposeful sample, there are threats to external validity, a limitation which may make it difficult to apply the results of the study to other populations. There is also a conceivable threat to internal validity as the subjects for the study were purposefully selected and the data collected may be perceived to represent only the views of like-minded subjects, and not represent random sampling. However, despite these threats, the data has the potential to stand the scrutiny of time. Equally important, the unambiguous nature of the open-ended questions allows the professional practitioners to offer their experience and should yield instructive qualitative responses.

Chapter 2

REVIEW OF THE LITERATURE

Childcare and preschool programs in the United States, hereafter referred to as early childhood education (ECE), have been the subject of decades of research, with the overwhelming consensus that ECE provides multiple short- and long-term benefits for children, parents, communities, and the greater society. In recent years, diverse disciplines including Neuroscience, Psychology, Biology, Medical/Nutrition, and particularly Economics have advanced the research on children's physical, social, and emotional development, each contributing to a growing body of evidence supporting the need for earlier interventions and continued investments in early childhood education programs. The significant implications for social work indicate the need for continued and expanded ECE programs, as the overall health and well-being of children has a direct and powerful influence in the struggle to combat complex and enduring social problems such as poverty, violence, addiction, teen pregnancy, and crime.

A survey of the literature describes how children's early neurological development, the product of both inherited physical traits *and* environmental influences, has a profound effect on a child's subsequent socio-emotional and cognitive development. As a result of early “neural plasticity,” or the ability of a young child's brain to respond and adapt to changing physical and environmental influences, the experiences and quality of care a child receives have a lasting effect (positively or negatively) on the child's ability to regulate her emotions, interact with her peers, form positive relationships, or develop the cognitive skills necessary for academic success. Additionally, research has

demonstrated that “skill begets skill,” meaning that children's social, emotional, linguistic, and cognitive skills are interdependent; consequently, neural circuitry develops in a “hierarchy,” such that attainment of higher-level functioning *depends upon* established and stabilized lower-level skills. Therefore, significant research confirms that in order for children to progress cognitively and demonstrate continued academic achievement, they must first be physically and emotionally secure and exhibit the ability to manage their emotions and develop healthy relationships. Economists, then, have observed and quantified the many positive life outcomes for children who successfully develop these social and emotional skills—results that indicate the benefits of ECE extend beyond the individual child and ultimately contribute to the reduction of social problems and the overall health of the society.

The literature further identifies the attention and importance given to the acquisition of social and emotional competencies to be, historically, the primary interest and focus of ECE programs, while the development of cognitive skills the principle task of K - 12 schooling. In recent years educational policy has increasingly targeted closing existing achievement gaps between more- and less-advantaged children, and many ECE researchers have observed that pressure to increase children's test scores in the elementary grades is subsequently influencing ECE goals, objectives, and instruction—a shift that many in the ECE field fear is reorganizing the primary purposes of ECE away from the developmentally appropriate practice of fostering children's socio-emotional development in favor of more specifically cognitive-based learning. This debate over how best to teach and prepare preschoolers for further schooling and for life, referred to

in the literature as “school readiness,” is of significant interest to ECE researchers and policy makers alike, as it directly relates to skills-instruction and curriculum development, forces which shape the very direction and purposes of ECE. The current literature review is presented to supply the necessary background to understand the salient processes of children's social, emotional, and cognitive development, as well as an understanding of the multiple positive outcomes throughout the life span for children participating in ECE programs.

History of Early Childhood Education

Significant research indicates that Preschool is a developmental period when children acquire essential social and emotional skills, tools necessary for both future academic growth and positive outcomes throughout the life span (Schultz, B. et al, 2011; McCabe, P. C., & Altamura, M., 2011; Greenwood, C. et al, 2006; Glassy, D., Romano, J., et al., 2005). Although this idea has been well-established, in order to understand the current issues surrounding the education of young children it is important to remember that within the United States, the concept of preschool and early childhood education (ECE) has been historically separated, both physically and ideologically, from the elementary grades and institutions of academic learning. Halpern notes that ECE, as an institution, recognized and fostered the socio-emotional and physical needs of children and more directly addressed the childcare needs of working families; ECE, therefore, began to embody a much more “decentralized...fragile and inadequately resourced set of local institutions responsive to different community conditions, family beliefs, and priorities” (2013, p. 5). Preschool has since continued to develop along the lines of an

essential early childhood intervention system, designed as a heterogeneous benefit to all children, and increasingly a provider of quality care for children often characterized as “at risk” (Halpern, R., 2013, p. 5).

Tracing this evolution back even further, Davis writes that much of the nurturing role attributed to ECE began in the late eighteenth century, a period in which the idea of “maternal instincts” governed the care of infants and children (2010, p. 288). Crediting the “climate of early Romanticism and its vitalistic view of childhood” (Davis, R.A., 2010, p. 288), and in particular the educational thinking of philosopher Johannes Pestalozzi (himself an early mentor to Friedrich Froebel, the man commonly referred to as the inventor of “kindergarten”), Davis carefully states that mothers, not fathers, were responsible for the primary parental interaction:

[...]this fresh perspective on the education of infants took as its paradigm the relation of mother to baby, highlighting above all else the importance of the life of feeling to the initial development of the child (2010, p. 288).

In one historical sense, then, the perceived dual purposes of preschool and “schooling” have been predicated, and to a large extent continued, on the early values of maternal nurturing in the home (or private childcare setting) before entry into the public realm of academics and the “tutelage of formally trained *gentlemen* masters” (Davis, R.A., 2010, p. 288, emphasis added). Implied in this idea is that prior to this time, in the mid- to late-eighteenth century, young children did not exist as individuals until the elementary grades when they began formal schooling under the customary teaching of men.

However, by the mid- to late-nineteenth century the importance of early childhood education championed by eighteenth century philosophy was soon reaching further into communities, beyond the aristocracy, and across countries. With Froebel and the traditional concept of kindergarten in Russia (quickly becoming the “Frobellian Movement” of London and soon practiced around the world), Maria Montessori in Italy, Rudolf Steiner and the Waldorf School in Germany, Mary Richmond in New Zealand, as well as John Dewey in the U.S., among many others, the understanding that children were individuals with specific rights, experiences, and needs of their own was rapidly transforming the landscape of early childhood education (Bethell, K., 2006; Nawrotzki, K., 2006; Davis, R.A., 2010; Saracho, O. N., & Spodek, B., 1995). In the U.S. Froebel's kindergarten agreed with popular thinkers of the time, particularly Emerson and Thoreau and their emphasis upon the “self,” as the country was just entering the industrial age and educational reformers like Elizabeth Peabody championed Froebel and ECE for “extending maternal values out into a dehumanized society” (Davis, R.A., 2013, p. 293).

It was during this time, in the U.S. and around the world, that concepts such as “child-centered,” “whole-child,” the all-important aspect of “play,” and the central notion of “constructivism,” that children must be safely and freely encouraged to create meanings from their own experience, became the pedagogy and practice of early childhood education (Weston, P., 2002; Gaido, D., 2005; Saracho, O. N., & Spodek, B., 1995; Valkanova, Y., & Brehony, K., 2006). Cornerstone principles of social ecology and human capital—that a child's environment necessarily affects her personality and development, that her success or failure is more than a product of her genetic make-up,

and that her successful cultivation ultimately benefitted society—captivated and informed educators dedicated to the advancement of young children. John Dewey, one of the signature voices in education reform in the United States at the turn of the century, articulately summarized this “holistic” view of the child, but also deftly anticipates the advancing industrial age and its “presumable” demands on children and the mission of early childhood education:

The actual interests of the child must be discovered if the significance and worth of his life is to be taken into account and full development achieved. Each subject must fulfill present needs of growing children . . . The business of education is not, for the presumable usefulness of his future, to rob the child of the intrinsic joy of childhood involved in living each single day (Gaido, 2005).

To a large degree, then, much of the current literature suggests the foundation of early childhood education in the U.S. evolved from these early movements, as Saracho and Spodek expressly note in an essay appropriately titled “On the shoulders of giants:”

To have a reasonable perspective of the field, there is a need to understand that not only does current practice build upon and replace past practices, but it also *reflects* (authors’ emphasis) past practice. In understanding the past and the contributions of those before us, we are able to know the saga of early childhood education and are able to become better, more reflective, more understanding, and more professional as a field (1995, p. 4).

Rather than simply “disparage innovative approaches,” the authors take pains to describe their experience with novice ECE practitioners and scholars who “...act as if nothing that was done more than 10 years ago is worth knowing” (1995, p. 4). With regard to the history of early childhood education in the U.S., several researchers have noted that if there is, in fact, a concern currently in the field of ECE with respect to the elementary grades dictating the curriculum and practices of preschool education, it is a debate that was arguably begun over 200 years ago when the question of “who shall govern infancy?” was first raised.

The Impacts of Early Childhood Education

Even a cursory glance at the literature surrounding early childhood education reveals the well-documented and overarching importance of fostering children's development from the time of birth onward and through entry into academic learning. Still further, considerable research from the fields of education, medicine, and social work provide evidence that the multiple positive impacts of ECE upon a child's social, cognitive, emotional, neurological, and physical growth produce equally positive outcomes that radiate beyond the child herself into her family, community, and larger society (Glassy, D., Romano J., et al., 2005; Heckman, J. J., 2008; McWayne, C. M., Green, L. E., & Fantuzzo, J. W., 2009; Oden, S., Schweinhart, L., et al., 2000; Schultz, B., Richardson, R., Barber, C., & Wilcox, D., 2011). Therefore, what advocates for ECE have long recognized, and what many federal, state, and community programs have worked ceaselessly to promote, is the idea that the many positive individual benefits of ECE also contribute lasting solutions to complex and enduring social problems. For this

reason, ECE remains a critical interest to social workers as they struggle to protect the dignity and worth of each individual and bring social justice and equality to all persons (NASW, 2009).

The rest of this section, then, will more closely examine the specific impacts of ECE as they relate to a child's social, emotional, and cognitive development. Because a large focus of many preschool programs chiefly concerns the child's transition from a preschool environment to a school setting, or what is often termed "school readiness" (McWayne, C. M., Wright, L., Cheung, K., & Hahs-Vaughn, D. L., 2012), it is important to understand the course of a child's development and the necessary competencies and skills each child requires for both academic and life success. Here it becomes interesting to note the traditional tendency of preschool to concentrate primarily on the psycho-social aspects of child development, on cultivating and teaching social-emotional competence, while the elementary grades customarily attend to more cognitive processes. As many researchers have discussed, proper development of socio-emotional skills is an inherent component of *both* the cognitive skills necessary for academic success, as well as positive outcomes throughout the life span (Schultz, B., Richardson, R., Barber, C., & Wilcox, D., 2011; McCabe, P. C., & Altamura, M., 2011; McWayne, C. M., Wright, L., Cheung, K., & Hahs-Vaughn, D. L., 2012; Heckman, J., 2008). Accordingly, a more thorough understanding of what educators call social-emotional competency is essential in order to visualize its role in school readiness and the multiple, lasting effects of ECE.

Social-Emotional Competency

The idea of social-emotional competency and its significance during child development and throughout the life span has been more than sufficiently documented in the literature. The Collaborative for Academic, Social, and Emotional Learning (CASEL), for instance, is merely one group that originated entirely from volunteers and now composes over 100 educators, researchers, and policymakers who "share a commitment to advancing the science and practice of social and emotional learning" (CASEL, 2013, html). Many researchers, in defining social-emotional competency, refer either directly or indirectly to five essential, interrelated skills outlined by CASEL that comprise social-emotional milestones reached during the Preschool years (ages 3-5): self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2013. See Figure 2).

Additionally, Schultz, Richardson, Barber, and Wilcox cite the seminal work Emotional Intelligence, by Goleman, who states that children with social-emotional competency "...are attentive to social cues, listen well, show sensitivity, and understand others' perspectives" (1995, in Schultz et al., 2011, p. 143). Goleman's work, publicly popular at the time, notably asserted that "emotional intelligence was as important as cognitive intelligence in determining success across the lifespan" (Schutze et al., 2011, p. 143). What Schultz et al. and many other researchers and educators are eager to document, is that social-emotional competencies can be *taught*, and the curriculum utilized in their study, "Connecting with Others: Lessons for Teaching Social and Emotional Competence K-2 Program, 1996," developed by Rita Coombs Richardson, has

Social & Emotional Learning Core Competencies



Figure 2. The Five Competencies of Social and Emotional Learning. (CASEL, 2013).

been widely used in studies throughout the ECE literature (Schutze et al., 2011). As Richardson herself states, “Besides the family, schools exert a dominant influence in the lives of children as they develop socially and emotionally” (Richardson, R., Myran, S. P., & Tonelson, S., 2009, p. 143). McCabe and Altamura, however, provide a more

telescopic summary of the overall significance of social-emotional learning in preschool:

Children who lack social–emotional competence in preschool are more likely to experience transition problems into kindergarten, be unprepared academically, manifest a number of social and behavioral problems in grade school, and exhibit long-term problems academically and socially...Early intervention of social–emotional problems helps to prevent more serious psychopathology in the future, and fostering social competence and emotional adjustment in preschool children can serve to inoculate against future stressors and challenges that children encounter in grade school (2012, p. 513).

It is important to note that “social” and “emotional” competence are often related though technically still separate constructs, “...because social interactions usually involve emotion, and children’s ability to be emotionally competent determines how successful they are during their social interactions and relationships” (Ashiabi, 2007, cited in McCabe and Altamura, 2011, p. 515). Ashiabi’s definition of social competence, then, simply refers to “how well children get along with peers and adults and establish successful relationships” (2007, cited in McCabe and Altamura, 2012, p. 515). Denham et al. agree, adding that social competence refers to “effectiveness in relationships...that meets short- and long-term developmental needs” (2003, p. 238). With regard to emotional competency, Denham et al. carefully state the importance of successful emotional self-regulation as it pertains and intertwines with social competence:

First, children's emotional expressiveness is a central aspect of their emotional competence. For example, positive affect is important in the initiation and regulation of social exchanges; sharing positive affect may facilitate the formation of friendships and render one more likable (2003, p. 239).

In a separate but related article, Denham, S., Bassett, H., & Zinsser, K. further define emotional regulation as a child's specific ability to handle emotions in “productive ways,” to be both aware of feelings and able to “monitor and modify” feelings so that they improve coping skills rather than interrupt or “impede” coping (2012, p. 138); a second part of Denham's definition, then, is the ability to “express emotions appropriately,” meaning children who have the resources to “maintain positive emotions” are better equipped to manage classroom tasks, as well as engage positively with teachers and peers (p. 138).

Therefore, taken together, the concepts of social- and emotional-competence refer to the development of skills that “...promote emotion recognition and regulation, empathy for others, problem-solving, and positive social interactions” (Denham, 2006, cited in McCabe and Altamura, 2012, p. 515). For this reason, preschools and ECE programs such as Head Start, have traditionally focused on teaching and fostering these specific skills in young children as they prepare for kindergarten and greater social and emotional challenges throughout life.

For decades, studies have repeatedly illustrated that children who demonstrate stronger social-emotional skills in Preschool and on into kindergarten are better prepared

for academic learning (McWayne, C. M., Green, L. E., & Fantuzzo, J. W., 2009; Denham, S. et al., 2003), and exhibit less negative behaviors in the classroom (Rhoades, B.L., Greenberg, M.T., Domitrovich, C.E., 2009; Richardson, R., Myran, S. P., & Tonelson, S., 2009). Recognizing that children's social-emotional skills also aid in the development of higher mental functions, Richardson, R., Myran, S. P., & Tonelson, S., among others, regard social learning as an inherent component of cognitive development as well (2009). Similarly, Rhoades, Greenberg, and Domitrovich, also report that the critical concept of inhibitory control, necessary for successful self-management, “falls under the cognitive dimension” as it represents a child’s “ability to inhibit a dominant response in favor of a sub-dominant one [in] highly-structured, non-emotional tasks” (2009, p. 311).

However, as a key feature of social-emotional competence, inhibitory control is also measured using tasks like “delay of gratification” or “resistance to temptation,” activities that challenge children to respond appropriately in more emotionally demanding situations:

[C]hildren who are better able to inhibit their natural tendency to use physical aggression (i.e., dominant response) and instead use their words (i.e., subdominant response) to attain their goals are likely to be viewed by their peers and teachers as better play partners and therefore more socially competent (Rhoades, B.L., Greenberg, M.T., Domitrovich, C.E., 2009, p. 311).

Successful inhibitory control, therefore, may be viewed as a particularly useful component of social-emotional learning as it encompasses a child's ability to not only make friends but directs the child's cognitive development such that it "contributes to the ability to coordinate thoughts and actions in a goal-directed manner" (Rhoades, B.L., Greenberg, M.T., Domitrovich, C.E., 2009, p. 311). These skills related to organizing thoughts and goals commonly refer to an aspect of cognition called "executive function," a key construct involved in the process of learning and one of several elements of cognitive development that will be further explored in the following section.

Cognitive Development

As many researchers have documented, the primary importance of early childhood interventions upon children's cognitive development stems from multiple findings and developmental theories that conclude "formal education is too late" to begin a child's education (Kartal, 2007, p. 544); more directly, "behavioral research confirms that the early years are foundational for a full range of human competencies and are a period of heightened sensitivity to the effects of both positive and negative experiences" (Knudsen, E.I., Heckman, J.J., Cameron, J.L., Shonkoff, J.P., 2006, p. 10155). Similar to the effects of social-emotional learning previously cited, levels of cognitive functioning in preschool age children are predictive of both elementary and high school success, and achieving cognitive skills "...affects children's success throughout schooling and later in life, in academics, creative arts, as well as interpersonal relationships" (Greenwood, C. R., Walker, D., Carta, J. J., & Higgins, S. K., 2006, p. 535).

Of the many scholars who have contributed to the research on children's cognitive development, Lev Vygotsky, a contemporary of the more well-known Jean Piaget, provides the theory that cognitive development essentially evolves from social interaction (Louis, G.W., 2009), that language and human communication, according to Vygotsky, "...emerge out of a matrix of social interaction in which signs that originate externally come to be internalized" (Christy, T., 2013,). In this way, language itself may be seen to be the product of "shared experience," as the prominent developmental psychologist Michael Tomasello, agreeing with Vygotsky, explains:

The ability to create common conceptual ground — joint attention, shared experience, common cultural knowledge — is an absolutely critical dimension of all human communication, the enabling mechanism of collaborative activities with shared goals (Tomasello, 2007, in Christy, 2013, p. 201).

Tomasello then elaborates on this system of "collaborative activities" enabled by language and communication, and remarks that this dialogue may be, in turn, "directed inward" to form cognition itself—"The use of socially shared symbols to direct one's own attention is one form of what is meant by the term *thinking*" (Tomasello, 2007, in Christy, 2013, p. 201, author's emphasis).

In this context preschool's steady focus on teaching social-emotional competencies reveals the foundation for cognitive development and the higher mental functioning commonly associated with school readiness. As considerable research reflects, the cognitive growth of a child during the preschool years, when an individual's

physiological and neurological growth is greatest (OHS, 2011; Knudsen, E.I., Heckman, J.J., Cameron, J.L., Shonkoff, J.P., 2006), naturally becomes a central focus of ECE efforts. Vygotsky's theory, then, identifies three basic concepts necessary for cognitive development to proceed in young children—"the zone of proximal development, scaffolding, and psychological tools"—and describes how preschoolers require social interaction in order to develop their cognitive skills (Louis, G.W., 2009).

The zone of proximal development refers to "the range of difficulty of tasks that are too difficult for the learner to complete alone," meaning that for cognitive development to occur the learner must be faced with tasks that are in the range of tasks that can be completed with assistance; if the task is too easy, or conversely, too difficult to be completed even with assistance, then no cognitive development occurs (Louis, G.W., 2009). The second concept, scaffolding, relates to the level of assistance given to the child; cognitive development is greatest when the level of assistance given is greatest initially and then gradually tapers as the child's skill progresses (Louis, G.W., 2009). Once the child is able to complete the task alone a new task must be introduced; subsequently, the "...repetition of a mastered task may improve fluency and accuracy," but a more complex task within a new zone of proximal development is necessary for cognitive development to continue (Louis, G.W., 2009). Lastly, psychological tools—written and oral language, symbols, or formulas—are important "intellectual mechanisms and operations" individuals use to examine their environment and interact with others; according to Vygotsky, "only through social interaction are these tools shared with

learners, thus enabling them to develop a more complex and complete understanding of the world” (Louis, G.W., 2009).

In presenting Vygotsky's concepts, Louis is acutely aware that his (Vygotsky's) ideas might be simply labeled “common sense,” that preschool educators would intuitively foster social interaction among children without explicit recommendations, but Louis is more interested to note that “...the value of this theory is that it draws attention to social interaction as being *absolutely necessary* (emphasis added) to cognitive development, not just beneficial to it [...] As Vygotsky says, ‘Through others we become ourselves’” (Louis, G.W., 2009, p. 21). Therefore, while children still develop “schemas” as they learn new concepts, and clearly progress through “stages” of cognitive development, as Piaget has documented, they develop these tools and problem-solving abilities through what Tomasello and Carpenter termed a “shared intentionality,” or “interactions in which participants share psychological states with one another” (2007, p. 121).

Indeed, what Tomasello and Carpenter take from Vygotsky is that it is precisely this “shared experience” that leads individuals to problem-solve and communicate “linguistically,” and what ultimately denotes the singular property of “human cognition” altogether:

The big Vygotskian idea is that what makes human cognition different is not more individual brainpower, but rather the ability of humans to learn through other persons and their artifacts, and to collaborate with others in collective activities (2007, p. 121).

Accordingly, when ECE advocates, researchers, and national organizations such as Head Start design preschool programs that prepare children for future schooling, they are acknowledging the significance of cognitive growth as it intertwines, and is founded by, social-emotional competence. In recognition of the continued impact of cognitive development on children's academic and life success, national ECE programs such as Head Start specifically address a child's "approach to learning" as a key domain in their educational framework, a standard upheld and practiced in multiple ECE settings; these principles outlined by Head Start, describe the measurable behaviors of children as they acquire the ability "to stay focused, interested, and engaged in activities" (OHS, 2011).

More specifically, these behaviors are typically associated with what researchers call "executive function" (EF), which is "the aspect of cognition synonymous with the volitional control of thinking in purposeful goal-directed activities" (Ursache, A., Blair, C., Raver, C. C., 2012). These authors have defined three distinct components of EF: "the ability to hold information in working memory, the ability to resist interference and distraction from extraneous or prepotent response tendencies and associations, and the ability to shift the focus of attention" (Ursache, A., Blair, C., Raver, C. C., 2012, p. 122). However, it is equally important to note that in addition to these specific components of EF, Olson also points to many other studies that suggest *inhibitory control* is also a chief component of EF, specifically that "effortful control," or the ability to delay impulse gratification, "...may be a stronger predictor of children's outcomes than the cognitive dimension" (Olson, 1989; Olson & Hoza, 1993; Olson et al., 1999, cited in Rhoades et al., 2009). Therefore, although it seems clear that a child's ability to hold items in

working memory and resist distraction indicates a capacity to learn, as Rhoades et al. and others have described, it is equally evident that children who are better able to control their impulses are naturally in a better position to succeed socially, a result that will “influence classroom behavior” and better prepare the child for future learning:

[...] those children who are unable to inhibit their impulses are more likely to exhibit externalizing behaviors such as physical aggression and to be viewed by their peers and teachers as poor play partners. They may be rejected from play groups, which may lead to internalizing behaviors (2009, p. 311).

By logical extension, Wilson and Hanson, citing David H. Arnold et al. (1999) and S.P. Hinshaw (1992), follow this idea with the claim that “...children's early academic skills and emotional adjustment may be bidirectionally related, meaning that young children who struggle with early reading and learning may grow increasingly frustrated and more disruptive” (2009, p. 58).

From a careful review of the literature, then, it becomes increasingly important to understand that the critical aspect of cognitive development termed executive function is actually constructed, and *dependent upon, both* the ability to coordinate thoughts in goal-directed ways, and the ability to inhibit and regulate emotional responses. In other words, what many ECE programs have recognized is that young children's cognitive development is not only directly related to their social-emotional competency, but that successful emotional regulation and social interaction skills directly influence the child's subsequent ability to organize information cognitively. As a result, when academic

institutions call upon preschools to foster “school readiness,” many ECE researchers fear that elementary education has trained its focus on the purely cognitive dimensions of EF in their interest in meeting the expectations of standardized testing outlined by policies such as the No Child Left Behind Act of 2002 (Wilson, V., & Hanson, R.R., 2009; Raver, C., 2002). As Raver explicitly states, “The current emphasis on children's academic preparedness continues to overshadow the importance of children's social and emotional development for early school readiness” (2002, p. 3).

Physio- and Neurological Growth and the Impact of Nutrition in Early Childhood

A minimal understanding of the nature of brain development and the concepts of hierarchal learning is fundamental to understanding the importance of critical growth periods early in life. In their seminal article on human development and the positive outcomes of early childhood interventions, Knudsen, Heckman, Cameron, and Shonkoff efficiently summarize the significance of these “early experiences:”

Central to these principles are the findings that early experiences have a uniquely powerful influence on the development of cognitive and social skills and on brain architecture and neurochemistry, that both skill development and brain maturation are hierarchical processes in which higher level functions depend on, and build on, lower level functions, and that the capacity for change in the foundations of human skill development and neural circuitry is highest earlier in life and decreases over time (2006, p. 10155).

Additionally, researchers in neurology have stressed that unlike the impact from other influential environmental factors like social interaction, education, or medical care, the effects from nutrition can “directly modify gene structure” and affect genetic expression of neuronal growth in the brain (Rosales, F. J., Reznick, J., & Zeisel, S. H., 2009; Knudsen et al., 2006). In terms of brain development, this period of neuronal growth during the preschool years is often referred to as “brain plasticity,” meaning that it is a time when these neural configurations are just beginning to shape the “synaptic architecture of the brain” (Rosales, F. J., Reznick, J., & Zeisel, S. H., 2009). Therefore, because nutrition may be viewed as having a direct biological impact on brain development, *access* to proper nutrition during the preschool years becomes a pivotal social and environmental influence ECE programs wish to control—“Thus, nutrition plays a critical role at the crossroads of the biological and nurturing factors that mediate brain growth and development” (Rosales, F. J., Reznick, J., & Zeisel, S. H., 2009).

When considered along with the tremendous physical, cognitive, and behavioral changes taking place during the preschool years, the impact of nutrition can dramatically alter the trajectory of a child's growth and learning experience. In this sense, the concept of brain, or neural, plasticity takes on even greater significance; as Knudsen et al. explain, neural circuitry forms along “hierarchal” patterns, meaning that lower-level neural circuits must be established before higher-level circuits:

This sequencing of sensitive periods is logical, because higher levels in a hierarchy depend on precise and reliable information from lower levels to accomplish their functions (i.e., early learning begets later learning,

and skills beget skills) (2006, p. 10159).

In differentiating between lower- and higher-level neural circuits, Knudsen et al. are pointing to the fact that lower-level circuits are often activated through genetic determinants and have critically sensitive period in which they can modify the synaptic architecture of the brain; should these circuits fail to develop (possibly through poor nutrition or other stressors), the foundation for later, higher-level circuits may be weakened (2006). However, because of early neural plasticity, "...the properties of many of these [higher-level] brain circuits have been shown to be particularly sensitive to the shaping influences of experience during early life" (2006). Rosales et al. agree, stating "...environmental determinants play an equally critical role in shaping the neural configuration through post-synaptic 'blooming and pruning' [...] In essence, an infant is born with the intrinsic capacity to learn, but how and what the infant learns is modulated by the environment" (2009, p. 190-91).

These findings suggest that while there are critical periods of development in the early life of a child, subsequent neural growth is also responsive to "experience," meaning positive interventions may still produce successful cognitive and behavioral outcomes. Many researchers and ECE advocates, therefore, propose that attending to the nutritional needs of children and families in poverty, or of low socio-economic status, may reduce the harmful effects of these negative environmental factors; according to Rosales et al., "Food insecurity and malnutrition have been linked to nutrient deficiencies leading to learning and developmental deficits amongst the most vulnerable, infants and toddlers" (2009, p. 191-92). However, these researchers are also careful to note that it is

particularly difficult to isolate the direct effects of nutrition in post-natal, or preschool age children, because unlike pre-natal development, which follows more predictable milestones, post-natal brain development is more flexible and occurs across a larger time period (Rosales et al., 2009). Again, it is the aspect of neural plasticity during this period of development that allows the brain to effectively “remodel itself,” a process in which the brain overproduces and then trims neuronal connections, allowing the brain to “...capture and incorporate experiences, giving rise to behavior as a manifestation of coordinated neural network activity” (Rosales et al., 2009, p. 193).

For this reason, nutrient deficiencies that occur during prenatal periods (i.e. when specific brain regions *must* develop), often have irreversible effects on neurogenesis and synaptogenesis, while similar deficiencies in the preschool years may, instead, be reversible because of neural plasticity; in this way, ECE programs and childcare providers have a “window of sensitivity” in which proper nutrition can have a profound effect upon a child's brain development and behavioral outcome (Rosales et al., 2009). However, it is equally important to recall that this neural plasticity decreases with age, as it is easier for the brain to initially establish neural connections, rather than re-create or redirect neural pathways already established (Knudsen et al., 2006; Cozolino, L., 2010). As just one example, Knudsen et al. refer to the process of language acquisition and the ease with which younger children learn first, second, or even third languages, while adults struggle to learn a second language (2006).

In this way, the preschool years may be seen as a time when a child's experiences contribute to the neural pathways building rapidly in the brain (“skill begets skill”), or

conversely, a time when neural connections may be “pruned” if conditions for neural growth are less than optimal. In preschool, when a child's surroundings begin to change as she moves from the home and immediate family into a larger social sphere, her dietary experiences, consequently, may also change just as dramatically. By age three a child, though still dependent on her caregiver for food, is much more autonomous in deciding what she eats; these early tastes, preferences, and habits, in turn, become established and typically remain in place into grade school when her environment will change again (Rosales et al., 2009). Beginning in preschool, a child also learns to eat within a social context and is influenced by her peers and educators; her familial and cultural experiences may differ from the social expectations and culture of her preschool environment, and these experiences, then, all contribute (positively or negatively) to her nutritional intake and habits. Therefore, ECE programs such as Head Start appropriately emphasize the importance of establishing healthy diets and eating habits, and include parental education and access to proper medical care for all children (OHS, 2011).

However, in addition to the importance of nutrition on neurogenesis and behavioral development, many researchers have also highlighted the disruptive forces of “toxic stress” and the effects of glucocorticoids, otherwise known as the “stress hormone” cortisol, on brain function (Shonkoff, J., 2009; Sajaniemi, N., Suhonen, E., & Sims, M., 2011; Barnett, M., 2008). Shonkoff defines toxic stress as the “...recurrent or prolonged activation (or both) of the body’s stress-response systems in the absence of the buffering protection of stable adult support;” environmental examples include poverty, chronic maltreatment or neglect, family or community violence, malnutrition, and

parental depression and/or substance abuse (2009, p. 81). Unlike “tolerable stress,” which more closely resembles the Vygotskian idea of a learning challenge within the zone of proximal development (Sajaniemi et al., 2011), toxic stress in children can not only “...disrupt brain architecture, [but] also leads to relatively lower thresholds for physiological responsiveness to threat that persist throughout life, thereby increasing the risk for stress-related chronic disease and cognitive impairment” (Shonkoff, J., 2009, p. 81). Similarly, Sajaniemi et al. find that the “inability to regulate stress responses harms brain development in specific areas including the hippocampus and prefrontal cortex, all fundamentally important in learning, memory and executive functions” (2011, p. 92).

What the literature from the fields of neuroscience, education, and developmental psychology convincingly presents is that preschool children’s neuronal growth and resulting behaviors are the product of both inherent and environmental factors, influences that begin early in life and continue to impact the child through multiple developmental periods. ECE advocates and programs, therefore, are expressly concerned with meeting the needs of vulnerable populations, children and families living in poverty with little or no access to enriching vital resources like stable housing, education, and adequate health- and child-care. Still further, conclusive research into brain development and its effects on social, emotional, and cognitive learning offer substantial evidence to support positive interventions as early as possible in children's lives, as “...brains are built in a hierarchical fashion, from the bottom up, and increasingly complex circuits and skills build on simpler circuits and skills over time” (Shonkoff, J., 2009, p. 80).

The Economic Impacts of Early Childhood Education

Decades of research, notably the iconic longitudinal studies The High/Scope Perry Preschool Project in Michigan and the Abecedarian Project in North Carolina, have concluded that preschool attendance produces multiple positive outcomes for individuals throughout the life span; these randomized studies cite the valuable long-term social benefits of reduced poverty, crime, substance abuse, teen pregnancy, violence, and chronic physical and mental health issues (Sweinhart, L. J., Barnes, H. B., and Weikart, D. P., 1993; Heckman J.J., 2008; D'Onise, K., Lynch, J. W., Sawyer, M. G., & McDermott, R. A., 2010; Kartal, H., 2007; Glassy, D., Romano J., et al., 2005). Correspondingly, economists have summarily agreed that interventions earlier in life prove far less costly to individuals and to society than later remedial interventions such as prison, welfare, addiction rehabilitation, and advanced physical and mental health care (Kartal, H., 2007; Knudsen et al., 2006; Azzi-Lessing, L., 2010; Heckman, J. J., & Masterov, D. V., 2007). Recent studies from prominent economists such as the Nobel-Prize recipient James J. Heckman strongly support social policies that promote early childhood interventions, and offer quantifiable evidence that such “investments” yield higher returns than later interventions—findings that indicate a need to rethink current social policy:

Later interventions are much less effective. At current levels of investment, American society over-invests in public job training and formal education and under-invests in early education for disadvantaged children... Cost–benefit analyses of these programs [ECE programs]

reported in the literature show that they are cost-effective. Estimated rates of return are 16%: 4% for participants and 12% for society at large (Heckman, J. J., & Masterov, D. V., 2007, p. 449).

The results of such economic analysis, therefore, greatly benefit ECE advocates (as well as social workers, policy-makers, medical and mental health professionals), who have repeatedly attempted to advance social policies that reflect a more preventative perspective of care necessary for the *development* of individuals, rather than just their remediation and rehabilitation (Wilson, V., & Hanson, R. R., 2009; Shonkoff, J. P., 2009).

At the heart of many economic arguments for increasing early childhood programs are two central, inter-related ideas—human capital and social inequality. Human capital is the notion that in addition to promoting individual human development, educational equity contributes to overall economic productivity and efficiency; consequently, economists' focus on social inequality, according to Heckman, is the recognition of the “economic value in equalizing educational opportunity and achievement [as] the most effective way to increase the productivity of the American economy” (2011, p. 4). What makes the economic appeal for ECE so compelling is that it draws information and research from such diverse fields as biology, education, human development, cognitive science, and economics to offer lasting solutions for complex and enduring social problems. In simplest terms, economists look for value in an investment and believe they have found a significant investment in the lives of young children, or as Heckman pointedly states,

Society has finite resources. Taxpayers can and should expect value for their investments in government programs and in their fellow citizens. Taking a hard look at the economic value of efforts to create human capital helps us see where best to invest in education to achieve its ideal—equalizing opportunity to build greater and enduring value for all (2011, p. 5).

In this way, economists have culled the research from multiple disciplines and essentially quantified the aggregate benefits of ECE. The two studies previously mentioned, The High/Scope Perry Preschool Project and the Abecedarian Project, contributed substantially to economists' understanding of the long-term impacts of ECE programs, as both studies were “scientifically rigorous...with a sufficient sample size and low attrition that allowed its long-term outcomes to be reliably ascertained” (Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S., 2002, p. 44). Conclusions from these long-term longitudinal studies indicated specific lasting differences between the treatment and controls groups, although there were significant differences between each program. The Perry program began in the early 1960s, took place over two years (school ages 3-4) and consisted of half-day classes with one weekly home-visit from a preschool educator (Coalition for Evidence-Based Policy, n.d); the Abecedarian program began in the 1970s, and was much more intensive, with half of the sample class studied lasting for five years (infancy to kindergarten) in full-day classes, and the other half continuing for another three years in public school (Campbell, F. A. et al., 2002).

Outcomes from the Perry study state that by age 27 the treatment group had “...44% higher high school graduation rates and 50% fewer teen pregnancies;” by age 40 treatment groups “...were 46% less likely to have served prison time, 33% less likely to have committed a violent crime, had a 42% higher median monthly income rate, and were 26% less likely to have received government assistance” (Coalition for Evidence-Based Policy, n.d). Similarly, outcomes from the Abecedarian study found that by age 21 [...] individuals assigned to the preschool treatment group had, on average, significantly higher cognitive test scores as young adults than did untreated controls, they earned higher scores on tests of reading and mathematics skills, they attained more years of education, they were more likely to attend a 4-year college or university, and they were less likely to become teen parents (Campbell, F.A. et al., 2002, p. 52).

These findings have continued to influence ECE curricula to the present day, particularly the federal Head Start program, which routinely cites the positive outcomes of the Perry study and the claims made by Schweinhart et al., that “...every dollar spent on early childhood eventually saved more than \$7 through increased adult employment and reductions in crime” (Campbell, F.A. et al., 2002, p. 44), when justifying its programs and budget (OHS, 2011). However, Campbell et al. are careful to state that there is still considerable debate surrounding these studies and their figures, noting that the Abecedarian study has been cited by the Clinton administration in 1996 in support of government ECE programs, while researchers Herrnstein & Murray, authors of the controversial book The Bell Curve in 1994, cite the same study “as proof of its [ECE's]

futility” (2002). What The Bell Curve succeeded in doing was bring the importance of cognitive development to the debate on early child and life outcomes; what many researchers took exception to was its claim that cognitive intelligence, and the standard achievement tests used as measurement, is essentially the *only* determinant of those outcomes.

To some extent, then, Heckman's research comes in direct response to the ideas presented by researchers like Herrnstein & Murray, and he presents a lengthy (63 pages) and convincing economic analysis of the Perry Project study in which he argues that life outcomes are produced from multiple factors beyond just the single dimension of cognitive intelligence, before concluding that the annual “social rate of return” falls between “7 and 10 percent” (Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., Yavitz, A., 2009, p. 1). In contrast to other researchers popularly cited claims, Rolnick and Grunewald (2003) and Belfield et al. (2006), who reported social return rates of 16 and 17 percent respectively, Heckman et al.'s estimates are considerably lower and yet still “statistically significant different from zero...and above the historical return on equity” (2009, p. 1-2).

A Nobel Laureate for his specific work in economic statistical analysis, Heckman is not only highly respected in the field of economics but his meticulous representations of the statistical benefits of ECE programs, particularly for disadvantaged children, contribute heavily to current policies supporting early childhood interventions. By quantifying the many advantages of ECE, Heckman's work directly aides policy-makers, at both the federal and state levels, who are charged with finding evidence to support on-

going and even expanding budgetary allowances for cost-effective social programs. As Valerie Polakow writes in her 2007 book *Who Cares for Our Children? The Child Care Crisis in the Other America*, “A cost-benefit rationale for investing in child care in the United States is a far more politically palatable argument than one that frames child care as a right and an entitlement” (p. 12).

Although longitudinal studies such as the Perry Project and the Abecedarian Program clearly reveal the long-term benefits of investing in early childhood intervention, both in terms of cultivating human capital and promoting social equality, *access* to high-quality child care and ECE programs remains a primary economic concern, if not a “crisis,” in many communities:

In a postindustrial globalized world, in which the male breadwinner/female homemaker family form has been superseded by an earner/carer society, the family/work conflict creates a domestic crisis of far reaching impacts. As long as caring and educating the nation's youngest children remains a uniquely private responsibility, the poorest and most vulnerable families will pay a disproportionately heavy price (Polakow, V., 2007, p. 13).

Therefore, in addition to the significant long-term individual and societal economic gains previously cited, the literature also acknowledges there are still more immediate and substantial economic benefits provided by early childhood programs that impact working families in the short-term as well. Estimates from numerous writers and researchers have placed the average costs for high-quality child care or enrollment in private preschool for

merely one child to range from \$500 - \$800 a month, a yearly total that is nearly double the cost of one year's tuition at a state university; figures from Child Care Aware of America's 2013 report, "Parents and the high cost of child care," state that child care costs exceeded all family expenses, including housing, college tuition, food, and health care in three of the four major regions in the U.S. (only the West had slightly higher housing than child care costs) (2013, p. 15). When viewed in these terms, (i.e. as a largely private responsibility), the economic impacts from overly expensive or otherwise inaccessible ECE programs may threaten the stability of working families, causing acute financial stress that will most likely harm the economy long before preschool children ever take their first jobs.

Because of these equally important short- and long-term economic gains associated with early interventions, many economists, particularly scholars such as James Heckman, have become some of the strongest advocates—actively promoting “investments” in early childhood education and lamenting far more costly and ineffective interventions later in life. In still another sense, what the field of economics has specifically brought to the sometimes broad field of ECE research is the ability to look at *all* the contributions of the individual sciences from a distance; in this way, cognitive skills, socio-emotional learning, behavioral development, environment conditions and resources, and biological and neurological systems are all seen as equal partners, each contributing to the outcomes of a child throughout the life span.

Head Start: The Beginning of the First Federal Preschool Programs

That social problems could be solved through providing a nurturing environment for young children and vital resources to their families is certainly not a new idea, but dedicating considerable government funds to combat poverty and the resulting achievement gaps was untried until the latter part of the twentieth century. Recognized in the U.S. as the first nationwide federally funded preschool program, Head Start is known particularly for its insistence on the need to alter the “foundations” of disadvantaged children in order to fight for social and economic justice (OHS, 2011). Initiated in 1964 as a central component of the Johnson administration’s “War on Poverty,” the emphasis on early childhood education was based on the complementary ideas of human and social capital—that the institution of child care, in addition to caring for the children of working parents, could also act as an investment in the nation's poorest families and less-developed communities (Conely, A., 2010). Since Head Start began, over 25 million children, aged 3-5, have participated in its programs (currently about 900,000 a year according to OHS, 2011), including an equally significant percentage of parents as well; in 2007, 27 percent of Head Start staff were parents of children currently or formerly participating in the program (Conely, A., 2010).

Therefore, in addition to the well-documented individual gains from its programs, Head Start has been notably credited for increasing parental involvement in children's lives, fostering parents' education, improving parents' access to social services, and developing employment opportunities for many parents with limited resources (Karch, A., 2010; OHS, 2011). Karch adds that Head Start's dedication to family involvement

ultimately led to the development of The National Head Start Association in 1973, “a national organization of parents, directors, staff, and 'friends' of Head Start” that actively participate in parent policy councils and “have a voice in governing and planning the program” (2010, p. 221). With such strong family and community support behind it, the program has also been lauded for encouraging mothers of low-income children, and other community members who might otherwise be excluded, to participate in the political process; as Karch effectively summarizes, “...the creation and political solidification of Head Start marked a key turning point in the development of American preschool education” (2010, p. 220).

Beyond specifically stressing the essential contributions of parents to the future academic and social success of their children, the program also directly addresses the needs of dual-language learners and children with disabilities, as its programs concentrate on school readiness and continued academic success in addition to the over-all well being of each child (OHS, 2011). Consequently, the Head Start “Child Development and Early Learning Framework,” based on current and evolving research, was developed to reflect the program's core values and guide all aspects of children's growth and development as they make the transition to the elementary grades (OHS, 2011). Constructed around 11 integrated domains of learning, this educational framework emphasizes development of the “whole-child,” with its attention to the physical, cognitive, emotional, and behavioral elements of learning; as such, the Head Start framework has been repeated or adapted throughout the ECE field as representative of early learning standards and its principles guide many ECE programs for 3 to 5 year-olds (OHS, 2011; NAEYC, 2009).

In its nearly 50-year history, literally thousands of studies have been conducted on Head Start programs throughout the country, and though some researchers (Herrnstein & Murray, 1994; Besharov, D., 2005) and policy analysts (e.g. The Heritage Foundation) have questioned the long-term benefits of Head Start, the bulk of research surrounding the iconic program continues to affirm its positive short- and long-term outcomes for preschool age children using multiple emotional, physical, and cognitive measurements (Gorey, K.M., 2001; Miller, A., & Fine, S., 2006; Denham, S. A., Blair, K. A., DeMulder, E. E., Levitas, J. J., Sawyer, K. K., Auerbach–Major, S. S., & Queenan, P. P., 2003; Caputo, R.K., 2003; Ursache, A., Blair, C., Raver, C. C., 2012; Heckman, J.J., 2008). However, despite decades of research and studies, currently there is still considerable debate between ECE advocates and policy makers as to how Head Start children should be assessed, and, more specifically, to what degree the program’s efforts have succeeded in closing existing achievement gaps between the least-advantaged children and their more-advantaged middle-class peers (Raver, C.C. and Zigler, E.F., 2004). Interestingly, much of the concern surrounding the direction and future of the federal Head Start program over the last decade stems from studies conducted by the U.S. Department of Health and Human Services itself, which has reported that while children participating in Head Start programs have made noticeable gains in both cognitive and emotional competency after the first year of a Head Start program (Administration on Children, Youth and Families, 2003), they nevertheless “...still lag behind national norms when they exit Head Start” (U.S. Department of Health and Human Services, 2003).

While these studies do not condemn the sizable efforts of Head Start programs, they do draw attention to the continuing struggle to decrease the existing inequality between children from disadvantaged environments and those from more enriched communities. In many ways, the disconnect between the multitude of studies validating the positive, comprehensive effects of Head Start and the more rare (though arguably more public) discouraging studies is indicative of the more recent push to move Head Start's means of assessment toward an "...emphasis on cognitive development as the critical factor in preparing for school" (Raver, C.C. and Zigler, E.F., 2004, p. 1). As many scholars in the literature have noted, historically Head Start's primary concern was "to enhance social competence" (Fantuzzo, J., Bulotsky-Shearer, R., McDermott, P. A., McWayne, C., Frye, D., & Perlman, S., 2007, p. 45), and to emphasize "school readiness in *broadly defined terms*" (Raver, C.C. and Zigler, E.F., 2004, p. 1, emphasis added). However, the passage of the No Child Left Behind legislation in the early part of the first Bush administration consequently shifted the focus of Head Start decidedly toward cognitive, or primarily early reading and mathematics competencies, a turnabout which caused many ECE educators and advocates to fear that the "...foundational approaches to learning and social emotional competencies [would] be deemphasized in the early childhood curriculum and as a result children will be placed at greater risk for poor school adjustment" (Raver & Zigler, 2004, in Fantuzzo et al., 2007, p. 45).

Raver & Zigler identified that No Child Left Behind was most likely created out of a "well-intentioned" attempt by policy makers to respond to continuing achievement gaps, but they disapproved of the methods the administration was taking to remedy the

problem:

Advocates and educators in early childhood suggest that if policy makers really wanted to close the education gap, they would make the kind of fiscal investments that are needed to provide children with the things that we know work: comprehensive, full-day services with highly trained, well-paid staff, with fewer children in each classroom, and with more time and resources to devote to learning, literacy, and social and emotional development (2004, p. 3).

Fantuzzo et al. add that national surveys of kindergarten teachers suggest that their “primary concern” is not necessarily that children have less cognitive ability, but that “...children—particularly those living in poverty—are not entering kindergarten with the basic learning behaviors and social-emotional competencies that they need to transition successfully into a formal learning environment” (2007, p.45). While educators and ECE advocates are not dismissing the importance of cognitive development, they are specifically concerned that legislation which removes or discounts the significance of social-emotional learning in formal assessments of Head Start children will not reflect the many and varied changes in learning that take place in the classroom—an effect which ultimately *undermines* the goals of early childhood education:

Low-income preschoolers’ acquisition of pre-literacy and other cognitive skills is likely to be *suppressed* (authors' emphasis) unless the social and emotional domains of learning and development are recognized and supported (Raver & Zigler, 2004, p. 4).

Therefore, because of the breadth and scope of the federal Head Start program and its necessary government funding, there is frequently a clash between the demands of policy makers, who wish to prove the effectiveness of the program in quantitative measurements (e.g. achievement/cognitive scores), and ECE advocates and researchers, who define the goals of early childhood education in “broader” terms of life outcomes (e.g. human and social capital). However, in an efficient summation of the views of ECE scholars, Raver & Zigler note that researchers had already convinced policy makers through specific language in the 1998 Head Start re-authorization act that validated both cognitive *and* social-emotional needs:

[...] intelligence alone does not guarantee academic success—that even a very bright child will do poorly in school if he or she suffers physical health or emotional problems, has trouble staying motivated, or does not interact well with teachers or peers (2004, p. 2).

For these reasons, ECE advocates and defenders of Head Start have taken exception to policy changes begun in the early 2000s, and still in effect today, that have steered the program away from its “broader mission of school readiness” (Zigler & Meunchow, 1992, in Raver, C.C., and Zigler, E.F., 2004, p. 2), and toward a system of assessment that favors primarily cognitive measurement, such as that mandated by the No Child Left Behind legislation. As Raver and Zigler deftly and eloquently argue,

Thus a focus on cognitive outcomes without an understanding of the multiple processes that lead to school success runs the risk of disenfranchising children from learning, disenfranchising good teachers

from teaching disadvantaged preschoolers, and disenfranchising voters

from the view that investments in young children pay off (2004, p. 3).

The next section, then, will continue to explore the current views of ECE educators, specifically as they envision the goals of early childhood education and their definition of school readiness as it applies to both academic learning and overall life outcomes.

The Perspectives of Early Childhood Educators on School Readiness

The concept of school readiness has been repeatedly studied, yet remains a controversial and widely contested idea throughout the ECE literature (Rimm-Kaufmann, S. E., Pianta, R. C., & Cox, M. J., 2000; Brown, C., & Gasko, J., 2012; Jones, J., 2011; Lara-Cinisomo, S., Fuligni, A., Ritchie, S., Howes, C., & Karoly, L., 2008; Hains, A., Fowler, S., Schwartz, I., Kottwitz, E., Rosenkoetter, S., 1987; Hatcher, B., Nuner, J., & Paulsel, J., 2012). As more and more states seek to fund state-supported prekindergarten (pre-K) initiatives, and an increasing percentage of children attend either private, state- or federally-funded preschool programs (Eckert, T., McIntyre, L., DiGennaro, F., Arbolino, L., Perry, L., and Begeny, J., 2008), the significance of school readiness has commanded the attention of the ECE community, teachers, parents, and policymakers alike (Brown & Gasko, 2012; Halpern, R., 2013; Hatcher, B., Nuner, J., & Paulsel, J., 2012). At the center of the discussion on school readiness is the difficulty of defining just what makes a child “ready to learn,” (the phrase made popular by the National Educational Goals panel, 1997, in reference to the skills a child would need upon entering kindergarten from pre-K). Therefore, at its most basic level, the concept of school readiness refers to the practice of preparing preschool-age children for kindergarten and further schooling

(Hatcher, B., Nuner, J., & Paulsel, J., 2012). However, even this description hints at various differences of opinion between preschool teachers, researchers in the ECE field, K - 12 teachers, and policymakers—groups that have historically not always agreed on the very purposes of preschool, much less the importance of the skills children need to transition to kindergarten and beyond (Rimm-Kaufmann, S. E., Pianta, R. C., & Cox, M. J., 2000; Lee, J., 2006; Hatcher, B., Nuner, J., & Paulsel, J., 2012; Halpern, R., 2013; Lara-Cinisomo, S. et al., 2008; Brown & Gasko, 2012).

For instance, Lara-Cinisomo, S. et al., begin with a basic observation about the “belief systems” of both preschool and kindergarten teachers—

Previous studies show a range of belief systems exist about what children need to have to get ready for school... and how to teach children those skills. For example, early childhood educators are more likely to report problem-solving as a key feature of school readiness, while kindergarten teachers more often emphasize appropriate school behavior (2008, p. 343).

While this is a fairly simple example, illustrating merely one argument over the importance of different skill sets, the difference in belief systems behind such arguments over school readiness is far more “complex” issue; as Hatcher et al. observe, “Kindergarten readiness is a complex idea linked to multiple meanings and factors...Chronological age, developmental stage, specific academic and social skills, and home/school connections are associated with readiness” (2012, p. 2). More specifically, beliefs and perceptions of readiness are formed around a local context, meaning the

activities and characteristics of the family, children, and entire community all contribute to meanings of readiness, with teacher beliefs a “crucial factor in determining practice [in schools]” (Hatcher et al., 2012, p. 2).

Therefore, in order to further understand the position of preschool teachers with regard to school readiness, it is important to remember that, historically speaking, preschools and the elementary grades “...have been about different things,” as Halpern carefully notes,

The ways in which each viewed and thought about children and about learning differed in important ways, notably in how children learn, how they acquire knowledge and understanding, the social conditions under which they learn best, how to think about and measure what children know and can do, responsibilities to families, and the principal work of teachers and other caregivers (2013, p. 4).

Rimm-Kaufmann et al. add that the “goals, demands, and nature of evaluations change” once preschoolers enter kindergarten and that kindergarten classrooms, more so than preschool environments, focus on formalized instruction, meaning that teaching is specifically geared to “raise children's skill levels” (2000, p. 148). In contrast, preschool and ECE was “...primarily a psychosocial, rather than academic, institution, that is, attended more centrally to socio-emotional (and physical) needs” (Halpern, R., 2013, p. 4). Lee more concisely summarizes these various debates on characteristics of school readiness within the ECE community: “Throughout its history, the field witnessed dichotomous debates—social-emotional vs. academics, child-initiated vs. adult-directed,

play vs. instruction, and the like—typically swinging back and forth in a pendulum manner” (2006, p. 433). Still further, not only have preschools traditionally operated under fundamentally different contexts and with distinctly different purposes than K-12 schooling, they have also “...been funded through varied means, sponsored by many types of organizations, [held] a different profile in each community, and free to focus broadly (if diffusely)” (Halpern, R. 2013, p. 5)—all factors contributing to preschool teachers experiences of relative autonomy within ECE classrooms and programs, when compared to the centrally organized and operated K-12 school systems.

In one sense, then, the discussion surrounding school readiness has always concerned existing differences in the belief systems of the ECE community and those involved in K-12 schooling; however, the current literature has noted that this debate has intensified with the evolving learning standards set by both No Child Left Behind (2002) and the more recent Common Core Standards Initiative (2010), educational policies designed specifically to close the continuing achievement gaps between less- and more-advantaged children (Hatcher et al., 2012; Halpern, R., 2013; Brown, C., & Gasko, J., 2012). As part of this growing expectation placed on children's knowledge and learning, there is also a new focus from some educators and policymakers on aligning preschool with the elementary grades, or what is often referred to as “preK – 3rd,” a movement created to establish a “continuum” of learning (Hatcher et al., 2012, p. 1; Takanishi, R., 2010; Pew Center on the States., n.d.).

Although there have been many reasons given for aligning preschools with the elementary grades, including that it would—“provide the basis for greater continuity in

children's learning experiences; create a broadened time frame for the transition to schooling; and foster an institutional context in which beliefs, assumptions, and practices from early childhood education and schooling would more readily shape each other" (Halpern, R. 2013, p. 3)—many ECE advocates and researchers fear such an integration would more likely “intensify academic pressures and...organize learning around high-stakes standardized tests” (Halpern, R., 2013, p. 3; Brown, C. & Gasko J., 2012; Lara-Cinisomo, S. et al., 2008; Rimm-Kaufmann, S. E. et al., 2000). Brown & Gasko state this “worry” plainly, observing that

Positioning pre-K as the launch site for school success has caused concern for many within early childhood education, mainly over how these reforms, which prioritize improving young children’s academic achievement, will affect the field. For instance, many worry that this focus on ensuring that all students attain a specific set of knowledge and skills by the time they enter elementary school will lead to a system of education that fails to take into account how children develop and learn (2012, p. 264-65).

Even before the current political push to centralize pre-k programs and curriculums with K-12 learning standards, ECE researchers have noted that the transition to kindergarten has increasingly heightened expectations for children to perform and this pressure is then felt by educators both up and down—from elementary school down to kindergarten, eventually extending down into pre-k: “As school standards become increasingly rigorous and higher levels of academic performance are expected in kindergarten, we can

expect that teachers' judgments will show greater discrepancies between teachers' expectations and children's competencies" (Rimm-Kaufmann, S. E. et al., 2000, p. 150)

These expectations of teachers, then, have a multi-dimensional influence upon their "judgments" of children's abilities, problems, attitudes, and capabilities for learning, beliefs that decidedly shape their definition of school readiness (Rimm-Kaufmann, S. E. et al., 2000; Hatcher, B. et al., 2012; Lin, H., Lawrence, F. R., & Gorrell, J., 2003).

Whether these judgments constitute actual or "perceived" conceptions of school readiness has a significant impact on both the trajectory of a child's educational career and teachers' views of what is needed in the classroom:

When teachers perceive that children entering school have difficulty following directions, lack of academic skills, or show other developmental lags, these perceptions place a burden on classroom teachers. The greater proportion of children in the classroom with these lags, the greater the workload for the classroom teachers, and the less attention the teacher can devote to the standard kindergarten educational program (Rimm-Kaufmann, S. E. et al., 2000, p. 150).

Therefore, the transition to kindergarten highlights the degree to which preschool competencies agree with K-12 expectations, a convergence which explains both the impetus to align pre-k with the elementary grades, as well as the existing need in the ECE community to maintain its distinct understanding of the goals, practices, and purposes of preschool learning (Brown, C. & Gasko J., 2012).

For instance, the NAEYC, in a statement that is representative of many ECE

researchers and advocates, has held the position (for nearly twenty years) that school readiness has “traditionally placed the burden of proof on the child:”

Until the inequities of life experience are addressed, the use of readiness criteria for determining school entry or placement blames children for their lack of opportunity. Furthermore, many of the criteria now used to assess readiness are based on inappropriate expectations of children’s abilities and fail to recognize normal variation in the rate and nature of individual development and learning (1995, p. 1).

Rather than insist children be ready for school, it is instead the responsibility of schools to “...respond to the diverse range of abilities within any group of children,” and to establish curriculums that “...provide meaningful contexts for children's learning rather than focusing primarily on isolated skill acquisition” (NAEYC, 1995, p. 2). For these reasons, the current literature suggests many researchers in the ECE field find the push to define school readiness in terms of specific academic and cognitive skills, as emphasized in the legislative efforts to close achievement gaps and align pre-k with K-12, to be misguided efforts that disregard decades of research documenting both the importance of developmentally appropriate practice in preschools, and the notion that preschool creates positive life outcomes for children (i.e. social-emotional competence) that cannot be measured solely in terms of academic achievement (NAEYC, 1995; Halpern, R., 2013; Heckman, J., 2008; Shonkoff, J., 2009; Raver, C.C., Zigler, E.F., 2004).

Interestingly, while there is considerable evidence from ECE researchers and advocates on the subject of school readiness and the purposes of ECE, there is far less

research documenting the actual perspectives of preschool teachers, as Lee (citing Phillips, 1996) describes:

Yet, until recently ‘efforts to articulate the meaning of quality in early care and education have been the special reserve of researchers, professional organizations, and advocates’ (Phillips, 1996, p. 51) and preschool teachers' voices were seldom heard.

According to the few existing studies on early childhood teachers' beliefs, preschool teachers appeared to hold ECE's time-honored tradition of prioritizing social, emotional, and physical development over academic learning and of endorsing child-directed practices rather than teacher-directed practices (2006, p. 433-434).

Therefore, because “...teacher's personal teaching beliefs and philosophies (i.e., what they think about the impact of teaching in general, as well as their understanding of how children learn) play a critical role in actual teaching practices and classroom decisions” (McMullen, M., Elicker, J., Goetze, G., Huang, H., Lee, S., Mathers, C., & ... Yang, H., 2006), the current study was created to address an identified gap in the literature and further explore the current beliefs and opinions of preschool teachers working in the Sacramento area. Although the study conducted by Lee (2006) provides an excellent qualitative description of the beliefs and attitudes of 18 preschool teachers in New York City, and a similar study by McMullen et al., (2006) attempts to trace the discrepancy between preschool teachers' beliefs and their actual practices in the classroom, both studies readily admit further research is needed to adequately explore the current beliefs

of preschool teachers with regard to school readiness and their understanding of the purposes of ECE.

As popular and political interest in federal- and state-funded kindergarten has increased in the last decade, greater attention has been focused on preparing children for the transition to kindergarten; however, the bulk of the literature studied has concentrated, for the most part, on the opinions and beliefs of ECE researchers and policy makers and has largely overlooked the beliefs of preschool and ECE educators themselves. Recent studies, therefore, have called for increased interest in the specific perspectives of preschool teachers with regard to school readiness, as preschool teachers' beliefs substantially influence their practices in the classroom and both directly and indirectly affect the nature and quality of children's learning.

Chapter 3

Methods

Although there are decades of research and tens of thousands of studies devoted to the practical benefits and significance of ECE, there is considerably less research soliciting the specific perspectives of the professional preschool teachers working in direct service with children. As ECE continues to demonstrate positive outcomes in both individual and societal contexts, and the popularity of ECE programs continues to grow both statewide and nationally, the importance of effective policy planning and funding for ECE programs also continues to increase. Therefore, as preschool and ECE programs gain greater support, there is a further need to add the perspectives of teachers working directly with children and parents, within the community served, to the body of literature influencing the delivery of ECE programs and policy. More specifically, as the subject of school readiness and the transition to kindergarten continues to define and describe the goals and objectives of preschool education, there is value in determining the professional perspectives of preschool educators as they understand the skills and competencies that shape the construct of school readiness.

Study Objectives

The purpose of the study is to examine the professional perspectives of preschool educators as to how preschool education contributes to the overall growth and development of children, with special reference to socioemotional and cognitive functions, and the overall domain of school readiness. In addition, the current study is also guided by the following research question: How does their understanding of school

readiness affect preschool teachers' delivery of preschool instruction as well as their perspective of the outcomes of preschool education?

Study Design

Because the current study is interested in gaining “a greater understanding of a particular group of people” (Dudley, J.R., 2010, p. 117), namely the professional perspectives of preschool teachers in the Sacramento area, a descriptive study design was used to obtain the data. In addition, as Dudley explains, “descriptive studies are often known to have representative samples that can be generalized to larger populations” (2010, p. 117); it is conceivable that the data obtained from the current study may be added to the growing body of literature used to influence future ECE policy decisions. The study used a quantitative, cross-sectional survey design that surveys the perspectives of preschool teachers using both a Likert-type scale questionnaire and open-ended questions. Data collected from open-ended questions was considered qualitative and analyzed accordingly using qualitative content analysis method.

Sampling Procedures

The study utilized a non-probability, purposive sample of 34 preschool teachers from the Sacramento area, specifically from First Five and the MIND Institute. As Dudley notes, “non-probability sampling is often used, because the intent of the study is not to generalize the findings” (2010, p. 150). Given more time and resources, a future study utilizing probability sampling would increase the ability to generalize the findings to greater populations; however, there is still value in gathering data from relatively smaller, purposeful samples. All preschool teachers recruited, from either First Five of

Sacramento County or Triumph Center for Early Childhood Education, in partnership with the MIND Institute of UC Davis, have received professional degrees or certifications in Early Childhood Education and/or Child Development. First Five preschool teachers participating in the survey serve diverse populations in Sacramento County, representing nine different school districts.

Data Collection Procedures

The data was collected using a survey method. Perspectives of preschool educators were obtained using a questionnaire and consent forms, which the researcher distributed to the agencies and collected from a designated person authorized to collect the packets. The researcher and the researcher's advisor are the only persons who viewed and analyzed the data. All data is scheduled to be destroyed by June 15, 2014. Prior to this time, the data (questionnaires and consent forms) were sealed in individual envelopes and collected by an authorized person at each agency designated to collect the sealed packets. The researcher collected completed packets from the designated person at each agency. At this time, the data was stored in a locked cabinet to which only the researcher had access. All the information collected from subjects was both anonymous and confidential. The person designated and authorized to collect the packets at each agency collected only sealed envelopes. The researcher is the only person with access to the consent forms with the participants' names, and the questionnaires were completed anonymously on a separate form returned separately from the consent forms. The researcher had no way of identifying or tracing individual participants' responses.

Instruments

The content of the questionnaire consisted of twenty-three close-ended questions arranged on a Likert-type scale, as well as four open-ended discussion questions that allowed the participants to describe their views more thoroughly (See Appendix A). The questions specifically addressed the participants' perspectives surrounding the concept of school readiness (i.e. what are the significant factors that demonstrate a child is appropriately prepared to transition to kindergarten and the elementary grades), as well as perspectives of the goals and objectives of early childhood education. The information from the participants was collected anonymously; although the questionnaire specifically solicits the participants' professional perceptions, there should be no risk of discomfort in answering the questions.

Data Analysis

For variables measured at the nominal level, frequencies and cross-tabulations were tabulated. For variables measured at the interval level, distilled from the Likert scale responses, means and Pearson's correlations were estimated and all appropriate associations analyzed. For variables such as perceptions of the impact of preschool education on school readiness and other interval level variables, Chi square and other measures of association, such as Cramer's V were calculated. However, because Chi square results had more than 60% of the cells with expected counts less than five, Chi square measurements of significance were not included. Responses to open-ended questions from the survey were considered qualitative data and analyzed accordingly.

Protection of Human Subjects

Because no risk is expected from participating in the study, the Sacramento State Institutional Review Board (CSUS IRB), has declared the study, # 13-14-020, exempt of risk. Human Subjects Committee Exemption 45 CFR 46.101(b)(2) applies because the research was conducted using an anonymous survey of professional educators. The questions of the survey are matters that the respondents work with on a daily basis. All information obtained from the survey are confidential and no identifying information was sought other than the name and the signature on the consent form. The researcher has taken additional precautions to ensure that the consent forms were submitted in a separate envelope to avoid any possible identification.

Chapter 4

STUDY FINDINGS AND DISCUSSIONS

The purpose of the study was to examine the professional perspectives of ECE practitioners to gain understanding of the impact of preschool education on both school readiness factors and the socio-emotional development of children. This chapter presents the study findings in the context of the themes presented in the literature review and the study questions. The respondents were given a series of statements related to the constructs on preschool outcomes and asked to rate their agreement on a scale of 1 to 4, with 1 representing “strongly agree” and 4 representing “strongly disagree.” The chapter, then, begins with the descriptive statistics of the various components of the study, and discusses the inferential components related to the study questions. It concludes with an examination of the qualitative data provided by participants’ responses to open-ended survey questions, and integrates the qualitative and quantitative findings with the themes identified in the literature review.

As research presented in the literature review indicates, children’s socio-emotional growth and development are represented as key factors regarding both a child’s readiness to transition to kindergarten (school readiness), and as an indicator of positive life-outcomes throughout the life course. In addition, the literature review identified that children acquire and build upon a foundation of skills (i.e. “skill begets skill”), meaning that early learning progresses along a hierarchy where social-emotional learning becomes the basis for future cognitive and academic learning. In this sense, researchers further characterized the historical goals and objectives of ECE as they relate

to developmentally appropriate practices that foster and cultivate social-emotional learning, while K-12 grades focus primarily on cognitive learning and measuring academic achievement. Because a review of the literature further suggested there was a gap in the literature with respect to the professional views of ECE educators working directly with children, the current study was designed to measure ECE educators' professional perspectives using a combination of quantitative and qualitative measures.

Overall Findings

The current study utilized data obtained from a survey of 34 preschool educators from a diverse range of schools within the greater Sacramento area, including the Triumph Center for Early Childhood Education (in association with UC Davis, MIND Institute), as well as preschools from multiple districts within the Sacramento First Five community of ECE programs. As presented in the following tables (Tables 1, 2, and 3), preschool teachers perspectives were measured for a variety of factors contributing to school readiness and positive life-outcomes. Overall mean scores range on a continuum from 1 – 4; therefore, mean scores on a continuum below 2.5 indicate the participants largely “agreed” with the statement from the questionnaire (1 = “strongly agree,” 2 = “somewhat agree”), while mean scores above 2.5 indicate the participants largely “disagreed” with the statement (3 = “somewhat disagree,” 4 = “strongly disagree”).

For instance, participants strongly agreed that the “goals and objectives of preschool education” include both academic preparedness and development of life-skills, with a mean of 1.26, SD = .447. Participants also strongly agreed that “successful development of social-emotional competencies contribute to positive life outcomes,” with

Table 1.
Perspectives of preschool teachers on accountability, assessment, and impact of preschool education.

	N	Minimum	Maximum	Mean	SD
Both academic work and life-skills as School Readiness	34	1.00	2.00	1.2647	.44781
Importance of tests for assessment and accountability	34	.00	4.00	2.3529	1.06976
Primary function of preschool is for academic work	34	1.00	4.00	2.2941	1.03072
Social-emotional competencies development as a contributor to life outcomes	34	.00	4.00	1.3529	.73371
Cognitive-ability testing as a predictor of life outcomes	34	1.00	4.00	2.5294	.92884
Preparation for transition into kindergarten includes relevant social skills	33	1.00	4.00	1.3030	.63663
Importance of social and emotional competencies as necessary for cognitive development—hierarchical skill development	34	1.00	3.00	1.2647	.51102
Valid N (listwise)	33				

a mean of 1.35, $SD = .733$. However, participants were less in agreement as to the “importance of tests for assessment and accountability,” with a mean of 2.35, $SD = 1.06$. This finding suggests a wider distribution in responses, and indeed, while the majority of participants (47%) “somewhat agreed” with the statement that “preschool ‘readiness’ tests are necessary to keep ECE programs accountable,” over 20% “strongly disagreed” with the statement. Qualitative responses presented later in the chapter will elaborate on this theme, among several other findings from the questionnaire.

Participants also viewed children's social-emotional development as both an important factor contributing to school readiness, as well as a foundational component for children's cognitive skill development—perspectives supported by research presented in the literature review. Participants “strongly agreed” that children's “successful development of social and emotional competencies is necessary for cognitive learning,” with the mean of 1.26, $SD = .511$. However, there was less agreement among the participants in response to the statement, “the primary function of preschool is to ensure children are ready for the elementary grades and the challenge of academic work,” with a mean of 2.29, $SD = 1.03$. That there was more variance in responses to this statement may point to an overall difficulty organizing and ordering the various components that comprise school readiness—a specific challenge the current study attempted to address; further discussion of this theme will be presented later in the chapter.

The study findings also identified more specific factors that contribute to the construct of school readiness, including the importance of self-regulation, forming and maintaining relationships, successful inhibitory control, and the appropriate expression of emotions for task management. For instance, participants “strongly disagreed” with the statement “children's emotional self-regulation skills have little influence on their cognitive skills and the ability to do academic work,” with a mean of 3.61, $SD = .739$, meaning that by strongly disagreeing with the statement, participants *affirmed* the importance of children's emotional self-regulation skills. Likewise, participants also “strongly agreed” with the statement that “children's ability to appropriately express emotions contributes to successful management of classroom tasks and positive

Table 2.
Preschool educators' perspectives on the impact and role of socio-emotional skill development with respect to school readiness.

	N	Minimum	Maximum	Mean	SD
Self regulation has “little influence” on cognitive skills/academic work	34	1.00	4.00	3.6176	.73915
Developing/maintaining relationships “is secondary” to pre-numeracy/literacy skills	34	1.00	4.00	3.0882	.93315
Successful inhibitory control = better problem-solving/decision-making	34	.00	3.00	1.5882	.65679
Appropriate expression of emotions for better task management/engage with peers	34	1.00	2.00	1.2059	.41043
Difficulty in early learning tasks as predictor of disruptive behavior	34	1.00	3.00	1.8824	.64030
Importance of both home and preschool environments for social skills development—skills can be taught	34	1.00	2.00	1.3235	.47486
Valid N (listwise)	34				

engagement with teachers and peers,” with a mean of 1.20, SD = .410. The current study findings also indicate participants strongly *disagreed* with the statement “the ability to develop and maintain relationships with peers and adults *is secondary* to developing pre-numeracy and pre-literacy skills,” with a mean of 3.08, SD = .933. These particular findings indicate preschool teachers perceive appropriate emotional expression and successful development of relationship skills to be at least equal to, or in advance of, development of more specifically cognitive skills, a theme supported in a review of the literature. Denham et al., in fact, carefully illustrate how successful emotional regulation

leads to greater social competence, as the authors note “effectiveness in relationships...meets short- and long-term developmental needs:”

First, children's emotional expressiveness is a central aspect of their emotional competence. For example, positive affect is important in the initiation and regulation of social exchanges; sharing positive affect may facilitate the formation of friendships and render one more likable (2003, p. 239).

Along with identifying the importance of socio-emotional skills for both the transition to kindergarten and for successful life outcomes, the preschool teachers surveyed also strongly agreed with the statement that “ECE programs are undervalued in the scope of providing solutions to complex social problems,” with a mean of 1.32, $SD = .726$. Participants similarly *disagreed* with the statement that “it is difficult to state the benefits ECE programs contribute to society,” with a mean of 3.11, $SD = 1.24$, meaning conversely, that preschool teachers do perceive ECE programs contribute a benefit to society. Notably, preschool teachers surveyed also largely agreed that they “have little influence in dictating social policy decisions and actions,” with a mean of 1.94, $SD = 1.04$. However, the higher standard deviation in these two findings, which indicates there was a wide distribution in response to this statement, may further suggest participants’ perceived influence on social policy and the benefits of ECE is a more subjective determination. Therefore, in an effort to record the variety and depth of educators’ responses, the survey also utilized open-ended questions directing participants to provide their perspectives as to what “ready for kindergarten” represents to them, as well as their

Table 3.
Preschool educators' perspectives on the value of ECE programs.

	N	Minimum	Maximum	Mean	SD
“Difficult to state” ECE programs’ benefit to society	34	.00	4.00	3.1176	1.24960
Perceived undervaluation of ECE programs	34	1.00	4.00	1.3235	.72699
Increasing access to ECE programs as contributing long-term high cost-benefit	34	.00	4.00	1.5588	.95952
Perceived influence of preschool teachers on ECE policy decisions and actions	34	1.00	4.00	1.9412	1.04276
Valid N (listwise)	34				

recommendations for “improving the effectiveness of ECE programs.” The next section, then, will present a more detailed analysis of the various study findings.

Specific Findings

The specific findings of this study are based on the currency, adequacy and practice perceptions of ECE educators. The current study indicates there were several factors the ECE practitioners surveyed considered important for school readiness, particularly the importance of “self-regulation” (Table 4), the importance of developing “inter-personal relationships” (Table 5), and the perspective that “socio-emotional competencies were necessary for cognitive learning” (Table 6). The distribution listed in Table 4 is congruent with much of the literature, as the educators surveyed convincingly “disagreed” with the idea that children’s emotional self-regulation skills had “little influence” in the development of their cognitive ability (over 73% “strongly disagreed”).

Table 4.***Self-regulation has little influence in cognitive skills and academic ability***

	Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	1	2.9	2.9
	Somewhat agree	2	5.9	8.8
Valid	Somewhat disagree	6	17.6	26.5
	Strongly disagree	25	73.5	100.0
	Total	34	100.0	100.0

The summary of the respondents' perspectives on the importance of developing and maintaining relationships as listed in table 5 indicate that participants also largely

Table 5.***Importance of relationships as "secondary to pre-literacy/numeracy skills."***

	Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	3	8.8	8.8
	Somewhat agree	4	11.8	20.6
Valid	Somewhat disagree	14	41.2	61.8
	Strongly disagree	13	38.2	100.0
	Total	34	100.0	100.0

"disagreed" with the idea that children's ability to develop and maintain relationships "was secondary" to developing numeracy and pre-literacy skills (almost 80% either "somewhat or strongly disagreed"). As researchers have discussed, children's social-emotional skills are comprised of separate but *inter-dependently* related skill sets-- "...because social interactions usually involve emotion, and children's ability to be emotionally competent determines how successful they are during their social interactions and relationships" (Ashiabi, 2007, in McCabe and Altamura, 2011, p. 515).

Table 6.
Importance of social and emotional competencies as necessary for cognitive development—hierarchical skill development

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	26	76.5	76.5
	Somewhat agree	7	20.6	97.1
	Somewhat disagree	1	2.9	100.0
	Total	34	100.0	100.0

Accordingly, when the researcher estimated Pearson's product moment correlation between the variables related to the impact of preschool education as important for developing "self-regulation" and for "developing and sustaining relationships," the study findings indicated there was a moderate, negative correlation that was also statistically significant (Table 7) [$r(34) = -.402, p < .05$].

Table 7.
Correlation between "Relationships as secondary to pre-numeracy/literacy skills" and "Self-regulation has little influence on cognitive ability/academic work."

		Relationships as secondary to pre-numeracy / literacy skills	Self regulation has little influence on cognitive ability/academic work
Relationships as secondary to pre-numeracy / literacy skills	Pearson Correlation	1	-.402*
	Sig. (2-tailed)		.018
	N	34	34
Self regulation has little influence on cognitive ability/academic work	Pearson Correlation	-.402*	1
	Sig. (2-tailed)	.018	
	N	34	34

*. Correlation is significant at the 0.05 level (2-tailed).

That the correlation was negative is a reflection of the negative phrasing in the statement "The ability to develop and maintain relationships with both peers and adults is one

objective of preschool education, but is secondary to developing skills such as pre-literacy and numeracy skills”—meaning that by “disagreeing” with the statement, participants were affirming the importance of relationships in preschool education. This correlation points equally to an idea repeated throughout the literature, as well as indicated by the current study, that

[...] children who lack social–emotional competence in preschool are more likely to experience transition problems into kindergarten, be unprepared academically, manifest a number of social and behavioral problems in grade school, and exhibit long-term problems academically and socially (McCabe and Altamura, 2011, p. 513).

Participants surveyed for the current study also reflected the perspective that successful development of socio-emotional skills assists children with classroom tasks and establishing necessary relationships—core principles from the literature with respect to school readiness. For instance, nearly 80% of respondents “strongly agreed” with the statement “the ability to ‘express emotions appropriately,’ meaning children who have the resources to ‘maintain positive emotions,’ are better equipped to manage classroom tasks, as well as engage positively with teachers and peers” (Table 8). The majority of study participants (over 67%) also “strongly agreed” that “children’s socio-emotional

Table 8.
Appropriate expression of emotions for task management

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	27	79.4	79.4
	Somewhat agree	7	20.6	100.0
	Total	34	100.0	100.0

skills contribute to positive life outcomes” (Table 9). Accordingly, when the researcher estimated Pearson’s Product moment correlations for the two variables, “appropriate

Table 9.

Social emotional competencies development as a contributor to life outcomes

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	1	2.9	2.9	2.9
Strongly agree	23	67.6	67.6	70.6
Somewhat agree	8	23.5	23.5	94.1
Somewhat disagree	1	2.9	2.9	97.1
Strongly disagree	1	2.9	2.9	100.0
Total	34	100.0	100.0	

expression of emotions for task management,” and “social-emotional competencies development as a contributor to positive life outcomes,” the study findings indicate there

Table 10.

Correlation between “Social-emotional competencies development as a contributor to life outcomes” and “Appropriate expression of emotions for task management.”

		Social emotional competencies development as a contributor to life outcomes	Appropriate expression of emotions for task management
Social emotional competencies development as a contributor to life outcomes	Pearson Correlation	1	.456**
	Sig. (2-tailed)		.007
	N	34	34
Appropriate expression of emotions for task management	Pearson Correlation	.456**	1
	Sig. (2-tailed)	.007	
	N	34	34

** . Correlation is significant at the 0.01 level (2-tailed).

was a moderate, positive correlation that was also statistically significant (Table 10) [$r(34) = .456, p < .05$].

Interpretations to the Findings

Qualitative responses from participants in the current study also echoed themes from the literature. More than two-thirds of those surveyed (70%) repeated similar ideas with regard to school readiness in response to the prompt “What does ‘ready for kindergarten’ bring to mind?” One participant deftly summarized these themes, observing that “ready for kindergarten” means, “Ensuring that children are prepared socially, emotionally, and academically to enter kindergarten with skills that enable them to problem solve, engage with others, and academically participate” (Respondent # 12, February 2014). Comparable responses to the same prompt include, “students being able to sit for a longer period of time during learning circle time” (Respondent # 3, February 2014); “how to deal with disappointment/frustrations” (Respondent # 6, February 2014); and “communicate needs to adults/peers effectively” (Respondent # 17, February 2014).

In these examples, study participants identified a related concept presented throughout the literature, that of the *foundational nature* of socio-emotional skills, meaning that “...both skill development and brain maturation are hierarchical processes in which higher level functions depend on, and build on, lower level functions” (Knudsen, E.I., Heckman, J.J., Cameron, J.L., Shonkoff, J.P., 2006, p. 10155). As one study participant succinctly responded, “Socially-emotionally prepared children do better academically” (Participant # 6, February 2014). As presented in table 6, the study findings indicate that 76% of study participants “strongly agreed” that “successful

development of social and emotional competencies is necessary for cognitive learning as children's development proceeds along hierarchical lines--that is, 'skill begets skill.'"

It is also worth noting that Pearson's product moment correlations for the two variables "successful development of social and emotional competencies is necessary for cognitive learning as children's development proceeds along hierarchical lines—that is, 'skill begets skill.'" and "children's emotional self-regulation skills have little influence on their cognitive skills and the ability to do academic work" yielded a positive, moderate correlation that was also statistically significant (Table 11) [$r(34) = .366, p < .05$]. This

Table 11.

Correlation between "Importance of self-regulation for academic work" and "Importance of social and emotional competencies as a foundation for developing cognitive skills."

		Importance of self-regulation for academic work	Importance of social and emotional competencies
Importance of self-regulation for academic work	Pearson Correlation	1	.366*
	Sig. (2-tailed)		.033
	N	34	34
Importance of social and emotional competencies for developing cognitive skills	Pearson Correlation	.366*	1
	Sig. (2-tailed)	.033	
	N	34	34

*. Correlation is significant at the 0.05 level (2-tailed).

indicates that the variables "the importance of self-regulation" and "the importance of social/emotional competencies as necessary for cognitive development" are related to yield a moderate correlation. This relationship needs to be examined further with a random sample of preschool educators to identify how the specific type of self-regulation promoting activities and the particular socio-emotional skills which can be developed and

strengthened in the preschool curriculum. This consideration is expanded further in the following chapter as it relates to recommended practice outcomes and delivery of preschool education.

However, a related question asking participants to consider whether “cognitive ability tests are an accurate predictor of successful life outcomes,” [Table 12) was not as conclusive. Although the majority of study participants (50%) “somewhat agreed” with this statement, over 41% of participants either “somewhat or strongly disagreed” with the

Table 12.

Tests measuring cognitive ability are accurate predictors of “readiness” for kindergarten and successful life outcomes beyond academic learning.

	Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	3	8.8	8.8
	Somewhat agree	17	50.0	58.8
Valid	Somewhat disagree	7	20.6	79.4
	Strongly disagree	7	20.6	100.0
	Total	34	100.0	100.0

statement. This finding, in particular, may correspond to the current tension identified in the literature over the fear that school readiness may be too often defined in terms of cognitive ability or purely academic achievement, as Raver pointedly observes: “The current emphasis on children's academic preparedness continues to overshadow the importance of children's social and emotional development for early school readiness” (2002, p. 3).

In qualitative responses to open-ended questions, a majority of the participants surveyed (59%) did address the importance of “meeting academic guidelines” as a component of being “ready for kindergarten;” however, many participants emphasized

the multiple factors involved in school readiness and addressed the need to foster “the whole child.” In stark opposition to “maintaining academic guidelines, one participant rather harshly characterized the process of “ready for kindergarten” as

Torture. As educators we have a ‘drill & kill’ mind-set when ‘preparing’ children for kindergarten. We can sometimes lack the ability to trust the minds of children and rob them [of] their natural learning process in order to maintain academic numbers or data (Respondent # 4, February 2014).

Although this respondent identified strongly with the perspective that there is more to preparing children for kindergarten than “...maintaining academic numbers or data,” overall, the study participants’ responses to the “primary function of preschool education” were more mixed. For instance, when study participants were asked specifically if they agreed or disagreed with the statement that the “primary function of preschool education is to ensure children are ready for the elementary grades and the challenge of academic work” (Table 13), there were varying levels of distribution represented in the responses.

Table 13.

The primary function of preschool is to ensure children are ready for the elementary grades and the challenge of academic work.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	26.5	26.5
	Somewhat agree	11	32.4	58.8
	Somewhat disagree	9	26.5	85.3
	Strongly disagree	5	14.7	100.0
	Total	34	100.0	100.0

Accordingly, these findings from the current study reflect a major theme identified in the literature review, one that pertains to the current discussion in the ECE community over the emphasis placed on certain factors that comprise “school readiness.” That is, a review of the literature reveals that many ECE researchers and advocates, view the “primary function” of preschool education as delivering developmentally appropriate practice that facilitates children’s successful acquisition and development of social-emotional skills, as these skills then *become the foundation for* the development of further cognitive skills. The current study indicates that while a majority of the educators surveyed either “strongly or somewhat agreed” (58%) that the “primary function of preschool is to prepare children for academic work,” nearly 42% either “strongly or somewhat” disagreed with the statement [$m = 2.294$, $SD = 1.031$].

In this respect, many participants from the current study echoed the perspectives of ECE researchers in that they did not agree the primary function of preschool is to prepare for academic work, and yet the distribution seen in the responses to this question may point to the difficulty of organizing and prioritizing the various factors that make up the construct that is “school readiness.” This finding may suggest that many educators surveyed for the current study also recognize that developing the socio-emotional skills that contribute to “positive life outcomes” is one important role of preschool education, deliberately outside of academic preparedness.

For instance, in qualitative responses, 59% of educators surveyed reported a theme that children should be “...able to meet academic guidelines/Recognize some letters, numbers, colors, shapes, simple addition, emergent writing and literacy.”

However, a very nearly equal number of participants presented a theme in which “ready for kindergarten” suggested (along with meeting academic guidelines) the idea of the “whole child:”

It brings to mind the whole child...can they sit on a carpet, listen to a story, play with other children, open their own lunch box? Also do they know colors, shapes, counting to 20, uppercase & lowercase letters, some letter sounds are helpful, common sense is so important, listening and following directions, and answering questions (What? Where? Why? When? Which? How?), fine motor skills, pencil grip, scissor skills
(Respondent # 16, February 2014).

Because overall responses from the participants surveyed (data obtained both from the Likert Scale questionnaire as well as open-ended questions) appeared to reflect two distinct themes—those identifying the need to “maintain academic guidelines” in preparation for kindergarten, and those emphasizing a more holistic focus on the development of the “whole-child”—the researcher attempted to estimate the differences in approach to ECE education as perceived by those surveyed into two groups: “traditional academic” and “holistic.” The researcher, then, computed a new interval-level variable based on participants’ scores on the Likert Scale to items that reflected each of these approaches. The results from this Independent T-test yielded a mean difference between these two groups of 2.045; however this difference was not statistically significant [$t = 1.562$, $df = 31$, $p > .05$].

That the attempt to find a statistically significant difference between these two approaches was unsuccessful, may further suggest that the educators surveyed currently hold the perspective that the construct of school readiness values *both* a focus on pre-literacy and pre-numeracy skills, or “maintaining academic guidelines,” as well as the importance of developing self-regulation, problem-solving, and inter-personal relationship skills, or a focus upon “the whole-child” and positive life-outcomes independent of academic learning. However, several participants (over one-third or approximately 36%) also qualitatively identified that although their school values both academic and socio-emotional skills, they listed and discussed the importance of socio-emotional skills first, and then described the importance of more academic skills, as one teacher explained when asked “what does the phrase ‘ready for kindergarten’ bring to mind?”

Social/emotional competence. Children who learn how to interact with others, and are able to handle emotional situations with peers and adults, can *then* be able to learn and succeed (Respondent # 4, February, 2014, respondent’s emphasis).

Another participant, responding to the same question noted,

In general, ready for kinder [garten] typically brings to mind academic readiness. I believe that the tide is turning to mean socially and emotionally ready, too...The focus on the family being ready for school, health attendance, structure for success (Respondent # 12, February, 2014).

These individual responses, along with similar themes obtained from both quantitative and qualitative data from the surveys, suggest that many preschool teachers understand “ready for kindergarten” as comprised of both social-emotional learning and academic or cognitive skill development, but that socio-emotional skills form the foundation of the construct that is school readiness. These findings are congruent with a 2012 study conducted by Applied Survey Research (ASR) on “School Readiness in Sacramento County: A Comprehensive Report,” a detailed analysis of school readiness factors, including “Readiness levels that teachers expect of incoming kindergarten students” (ASR, 2012). The report identified “building blocks of readiness,” or a three-tier “pyramid” structure to the construct of school readiness, in which children’s “Self Care and Motor Skills” comprised the bottom layer, “Self Regulation” and “Social Expression” the middle layer, and “K (kindergarten) Academics” the final layer, or peak of the pyramid (ASR, 2012, p. 26).

The findings from both the current study, as well as the related 2012 study on school readiness factors, correspond to considerable research in the literature that recognizes the value of preschool and ECE programs both within and beyond academic success. More directly, the current study also identified a moderate, negative correlation between the variables “Preschool and ECE programs contribute benefits to society,” and “My school successfully prepares children for the transition to kindergarten, and for meeting challenges outside of academic work, such as interpersonal relationship, self-management, and problem-solving skills,” that was statistically significant (Table 14.) [$r(34) = -.503, p < .05$]. That the correlation was negative is a result of the negative

Table 14.
***Correlation between “It is difficult to say ECE programs provide a benefit to society” and
 “Preparation for transition to kindergarten includes relevant social skills.”***

		Difficult to say ECE programs provide benefit to society	Preparation for transition into kindergarten / includes relevant social skills
Difficult to say ECE programs provide benefit to society	Pearson Correlation	1	-.503**
	Sig. (2-tailed)		.003
	N	34	33
Preparation for transition into kindergarten / includes relevant social skills	Pearson Correlation	-.503**	1
	Sig. (2-tailed)	.003	
	N	33	33

** . Correlation is significant at the 0.01 level (2-tailed).

phrasing of the “It is difficult to state the benefits of ECE to society” statement; by “disagreeing” with the statement, participants were, conversely, affirming the “benefits of ECE to society.” As discussed in the literature review, several disciplines, ranging from neuroscience, psychology, biology, and particularly economics, have demonstrated the multiple individual and societal positive outcomes that result from children attending preschool and ECE programs. The noted economics scholar James J. Heckman has repeatedly observed in his research on the economic advantages of early childhood interventions that

[...] later interventions are much less effective. At current levels of investment, American society over-invests in public job training and formal education and under-invests in early education for disadvantaged children... Cost–benefit analyses of these programs [ECE] show that they are cost-effective” (Heckman, J. J., & Masterov, D. V., 2007, p. 449).

When asked specifically about these themes from the literature, participants in the current study also supported both the idea that “ECE programs provide a benefit to

Table 15.

It is difficult to say ECE programs provide a benefit to society.

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	8.8	8.8	8.8
Somewhat agree	6	17.6	17.6	26.5
Valid Somewhat disagree	6	17.6	17.6	44.1
Strongly disagree	19	55.9	55.9	100.0
Total	34	100.0	100.0	

society” (Table 15), as well as the idea that ECE programs yield a “high cost-benefit” (Table 16) in terms of providing effective social programs that care for individuals across

Table 16.

Access to ECE programs yields high cost-benefits.

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	1	2.9	2.9	2.9
Strongly agree	20	58.8	58.8	61.8
Valid Somewhat agree	9	26.5	26.5	88.2
Somewhat disagree	1	2.9	2.9	91.2
Strongly disagree	3	8.8	8.8	100.0
Total	34	100.0	100.0	

the life-span. However, when asked specifically if they agreed that “ECE programs in the United States are currently undervalued in the scope of providing solutions to complex social problems” (Table 17), almost 80% of participants surveyed “strongly agreed” with the statement. This finding, in particular, suggests that even though the educators surveyed report preschool and ECE programs as contributing value to both

Table 17.
Preschool educators' perceived undervaluation of ECE programs.

	Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	27	79.4	79.4
	Somewhat agree	4	11.8	91.2
Valid	Somewhat disagree	2	5.9	97.1
	Strongly disagree	1	2.9	100.0
	Total	34	100.0	100.0

individuals and the society, the perception exists that the society itself has not recognized the value of ECE in providing “solutions to complex social problems.” However, when asked to respond to the statement “In my view preschool teachers have little influence in dictating social policy decisions and actions” (Table 18), the findings indicate a majority of those surveyed (over 73%) either “strongly or somewhat agree” with the statement.

Table 18.
Preschool educators' perceived influence on ECE policy decisions.

	Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	15	44.1	44.1
	Somewhat agree	10	29.4	73.5
Valid	Somewhat disagree	5	14.7	88.2
	Strongly disagree	4	11.8	100.0
	Total	34	100.0	100.0

This finding, in particular, suggests that participants in the current study not only perceive that preschool is “undervalued” when it comes to remedying complex social problems, but that preschool teachers have “little influence” to alter policy-making towards that end.

With respect to this perception of having little influence in policy decisions, the current study asked participants to identify some of their recommendations for

“improving the effectiveness of ECE programs.” Several distinct themes emerged from the qualitative data obtained when teachers were asked to respond to this prompt, and specific responses from those surveyed will be presented. For instance, of the many recommendations provided, the most prevalent included “more education for teachers and instructional assistants;” “free access to preschool programs;” “parent education and parent involvement;” “less paperwork for preschool teachers—revise the DRDP assessment tool and provide more time for preschool instruction;” “play, and positive, fun, engaging activities for children;” “preschool teacher respect and equitable compensation (to K – 12 grade teachers);” “educating parents and teachers about the importance of social/emotional skills;” “more funding for ECE programs;” and “uniformity of preschool standards, and greater alignment with the elementary grades.”

The educators surveyed also demonstrated they were invested in the idea of “continuing education” for preschool teachers,

Teachers in ECE programs should have more ECE background and higher education. I think it’s a good idea for all teachers to have at least a B.A. degree in ECE. And continuing Ed. Should be promoted and encouraged to be up to date on new development, research, and findings
(Respondent # 7, February 2014).

Those surveyed were equally interested in raising both the “compensation” and “respect” for preschool teachers, particularly as compared to those in the K – 12 grades, as one participant observed, “...equitable compensation to PreK [is needed] for highly qualified providers” (Respondent # 31, February 2014); similarly, others stated that “ECE teachers

are not respected equally to K – 12 teachers” (Respondent # 25, February 2014), and “...[inadequate] funding also keeps the best teachers from entering the field” (Respondent # 18, February 2014). Appropriately, a recommendation was also made to “...change the term ‘child care’ to ‘Early Learning and Development (ELD)’” (Respondent # 2, February 2014), a suggestion which more accurately reflects the significance of both the developmental age of preschool children and the level of instruction provided.

With regard to the “nature” of preschool learning, the theme of the “importance of play” was repeated by many study participants, or as one preschool teacher loudly advised, “Never forget play! It’s so important...the authentic nature of children” (Respondent # 1, February 2014). Others echoed this theme in their qualitative responses, adding—“...more real life, hands-on experiences are effective when teaching children. Children excel when they are reminded of the endless possibilities in life and learning” (Respondent # 21, February 2014). One teacher expanded on this concept to include still another theme introduced by many of the study participants, that of the demand of “note-taking” and completing the many assessments required,

I believe that children should have a very positive experience in ECE. It should be fun. This is where they create their first opinions about school. I think that often all the note-taking in my program takes away from the time that could be spent putting together fun and engaging activities (Respondent # 8, February 2014).

Another respondent stated, "...lessen the amount of measures that are in the DRDP (Desired Results Developmental Profile). Not worth the time it takes to complete all the measures..." (Respondent # 11, February 2014). Still another teacher summarized much of these sentiments, while introducing yet another important theme that emerged from the qualitative data, that of the importance of social-emotional learning:

I think we need to 're-look' at how we evaluate our children in ECE programs. Too much paperwork means less teaching is going on. For example, the DRDP tool needs to be revised. Also, I think social development skills are key to a child being academically prepared. So I feel there needs to be more 'play-based' [instruction] that can still contain intentional teaching (Respondent # 26, February 2014).

Notably, many teachers followed in recommending that social-emotional learning retain a prominent position in the preschool experience:

Programs should be safe and inviting to promote healthy learning. Teachers and Supporters should support social and emotional development during preschool ages. Children need to be able to feel safe for them to learn... environments that allow learning through hands-on, child-directed play (Respondent # 20, February 2014).

Or, as still another teacher declared, "[I want to] ensure a play-based experience for all children in my care...ensure a child is respected as an individual" (Respondent # 19, February 2014). These observations were congruent with much of the literature reviewed, as ECE researchers frequently pointed out that national surveys reveal that

kindergarten teachers are not as concerned about cognitive ability as they are that “...children-- particularly those living in poverty—are not entering kindergarten with the basic learning behaviors and social-emotional competencies that they need to transition successfully into a formal learning environment” (Fantuzzo et al., 2007, p.45).

In many respects, the data obtained from preschool teachers’ qualitative responses matched the data obtained from quantitative scores from the responses to the Likert Scale statements; that is, many teachers demonstrated that their conception of the concept of school readiness included both the importance social-emotional learning, as well as an understanding of what another respondent called, “...the skills children will need to know or be able to do upon entrance to kindergarten.” As one teacher summarized,

I believe a balance of free exploring and targeted specific direct instruction makes all the difference. Providing scaffolding is key. Each child has different skills they are working on; some are ready for pencil/paper, others are still writing in sand, etc. Kindergarten is sitting and doing work; providing children with the experience they will have in kindergarten beforehand is very helpful for them (Respondent # 10, February 2014).

It is worth noting that, as the response above indicates, many teachers are cognizant of the importance of socio-emotional skill development as it contributes to the requirements of kindergarten (i.e. “sitting and doing work”).

However, other teachers’ responses indicated an acute awareness that, in practical terms, the construct of school readiness *is still being defined* by preschool curriculums

and policies in terms of the prioritization of either socio-emotional learning over academic learning, or vice-versa. As one study participant specifically stated, “The policy-makers of preschool have to decide whether they want teachers to focus more on social/emotional development or academic school readiness” (Respondent # 24, February 2014). Quantitative data from the current study also points to preschool teachers interest in, as one teacher recommended, “a bridge between preschool and the elementary grades” (Respondent #28, February 2014). This is further reflected in Table 19.

Table 19.

Preschool teachers support for curriculum alignment between preschool and K-3rd

	Frequency	Percent	Valid Percent	Cumulative Percent
	23	67.6	67.6	67.6
	9	26.5	26.5	94.1
Valid	1	2.9	2.9	97.1
	1	2.9	2.9	100.0
Total	34	100.0	100.0	

With respect to this last observation, it is conceivable that preschool teachers eagerness for greater alignment with K – 12 represents a perceived need for incoming kindergarteners to be better prepared for the types of achievement tests used throughout the elementary grades. As one participant observed, “[ECE needs] better understanding by teachers of what kindergarten teachers need students to know or be able to do upon entrance to kindergarten” (Respondent # 22, February 2014). Another participant noted, “Our program should align more with the Common Core state standards” (Respondent # 16, February 2014). These recommendations suggest there are some preschool teachers who are interested in creating more central goals and objectives for preschool and ECE

programs that address the imminent achievement tests of K – 12 education—measurements that are largely, if not solely, cognitive-based. In this way, the current study findings also reveal another theme from the literature, one that identifies the present tension in the ECE community as it senses either direct or indirect pressure from the elementary grades to shift the scope of preschool education further away from its traditional focus on socio-emotional based skill development toward more cognitive-based learning. More discussion of this theme follows in the next chapter as recommendations for ECE programs and preschool education are presented.

Interestingly, it is precisely this need for clarification of the goals and objectives of preschool education that many ECE researchers and advocates have effectively outlined in the literature; however, in the minds of many researchers, these questions have already been answered, as Raver and Ziegler have repeatedly cautioned that "...foundational approaches to learning and social emotional competencies will be deemphasized in the early childhood curriculum and as a result children will be placed at greater risk for poor school adjustment" (Raver & Zigler, 2004, in Fantuzzo et al., 2007, p. 45). These same researchers further argue that it is now time for “policy-makers” to act on the evidence presented:

Advocates and educators in early childhood suggest that if policy makers really wanted to close the education gap, they would make the kind of fiscal investments that are needed to provide children with the things that we know work: comprehensive, full-day services with highly trained, well-paid staff, with fewer children in each classroom, and with more

time and resources to devote to learning, literacy, and social and emotional development (Raver, C. & Ziegler, E., 2004, p. 3).

Summary

Therefore, what the current study demonstrates is that the preschool teachers, those who deliver preschool education, are in agreement that the construct of school readiness comprises *both* academic and socio-emotional factors, and even agree that cognitive skills are necessarily dependent on the successful development of socio-emotional skills. However, the majority of preschool teachers surveyed also indicated that “the primary function of preschool education is to ensure children are ready for the elementary grades and the challenge of academic work” –a finding that suggests a majority of preschool teachers still hold the perspective that the delivery of preschool education is primarily concerned with developing the cognitive skills (i.e. pre-numeracy and pre-literacy) that are used as the measure of achievement in the elementary grades.

The findings of the current study, in addition, lend evidence to the fact preschool educators are also well aware of the importance of cultivating “the whole child.” In both quantitative and qualitative responses, participants demonstrated that the construct of school readiness includes the factors that contribute to overall positive life outcomes, such as the successful development of the socio-emotional skills that prepare children for both academic *and* life-skills. These skills include the ability to form interpersonal relationships, self-regulatory efficacy and the ability to express emotions appropriately, and successful inhibitory control for effective task management and problem solving. The following chapter, then, will address the issues of how preschool teachers may

continue to deliver activities and instruction in the service of developing these socio-emotional skills, and still further, how preschool curriculums may retain a focus on developmentally appropriate social and emotional learning, as distinct from the more academic objectives of the elementary grades.

Chapter 5

CONCLUSIONS, SUMMARY, AND RECOMMENDATIONS

The major findings from the study include participants' professional perspectives that the construct of school readiness is comprised not only of both socio-emotional competencies and cognitive skills, but that the impact of preschool education delivers positive life outcomes throughout the life course, within and beyond academic achievement. In addition, preschool teachers surveyed supported the concept that children's successful socio-emotional development necessarily forms the foundation for further development of cognitive abilities, as children's learning proceeds along hierarchical lines.

Summary of Study

These findings from the current study were congruent with the literature reviewed, including a more recent, local study from Applied Survey Research (ASR) in 2012, which focused on the specific school readiness factors Sacramento kindergarten teachers observed in children coming from local preschool programs. Quantitative and qualitative responses from participants in the current study notably reflected the concept of preparing "the whole child" when discussing factors that indicate a child is ready for kindergarten—a distinction which suggests educators' delivery of preschool education respects multiple domains of children's learning and development.

With regard to children's social and emotional competencies, participants strongly agreed that the ability to appropriately express and self-regulate emotions contributes both to children's cognitive skill development and their ability to develop and sustain

relationships with peers and adults. Participants also strongly agreed that children who demonstrate satisfactory inhibitory control are better problem-solvers and decision-makers, and strongly supported the idea that socio-emotional skills are learned both in the home, as well as the preschool environment—principles repeatedly observed in the literature review. Additionally, in qualitative responses many teachers recommended increasing parent involvement in children’s learning and advocated for increasing resources for both parenting workshops and parent education regarding children’s social and emotional skill development.

In broader terms of the impact of preschool education, participants affirmed that preschool and ECE programs contribute to benefits to society, that increasing access to ECE delivers high long-term cost-benefits, and that currently ECE programs are undervalued in the context of contributing solutions to complex, enduring social problems. These specific findings were also congruent with the literature reviewed, particularly with iconic longitudinal studies, such as the High/Scope Perry Preschool Project and the Abecedarian Project, but also with the more recent work of James Heckman, the Nobel Memorial Prize winner in Economics from the University of Chicago, who has staunchly advocated for social policies that support early childhood interventions. In this respect, a majority of study participants recommended increasing funding to ECE programs, such that all children have greater access to preschool education. Likewise, qualitative responses indicate a majority of participants support increasing funding for preschool teachers’ continuing education in current research, both for advances in practice delivery and the study of child development.

The study findings also demonstrated that preschool teachers are less in agreement as to the importance of accountability tests and assessments for ECE programs. While the majority of teachers agreed that accountability tests help teachers deliver developmentally appropriate practices and activities, several teachers discussed concerns that assessments can be excessive and take up valuable teaching time in the classroom. Study participants also demonstrated varying agreement as to the primary function of preschool education itself, a finding that suggests that while preschool teachers certainly recognize the multiple factors that contribute to the construct of school readiness, there is still some discussion regarding a more central conception of preschools' primary aim. This particular finding will be examined in greater detail in the following section.

Implications for Social Work

Social work is inherently invested in engaging social policy to advance human rights, advocate for social and economic justice, and to protect the dignity and worth of individuals (NASW, 2009); the very purpose of the social work profession is to promote human and community well-being (CWSE, 2008). Investing in social policies championing early childhood interventions and education directly addresses these core principles of social work, and contributes solutions to long-standing social problems. In conducting the current research and providing the study's findings, the researcher is attempting to aid children from diverse populations actualize CWSE competencies. Of particular value to the researcher is the articulation of the Ethic of Care perspective, which specifically concerns the development and maintenance of social policies that care

for individuals across the lifespan. The Ethic of Care perspective recognizes that individuals are vulnerable at different times throughout life, and acknowledges that the continued health and welfare of individuals positively affects all in the society.

In terms of additions to micro-level practice, the current study findings suggest that preschool educators adhere to developmentally appropriate classroom activities and instruction that specifically foster children's social and emotional development. As a review of the literature indicates, children's skill development necessarily proceeds along a hierarchy, meaning that children's cognitive abilities are *dependent on* successful development of socio-emotional competencies. Therefore, it is critical that preschool educators recognize the order of operations within their classroom—that by cultivating and delivering practices that support socio-emotional growth, teachers are also inherently fostering children's cognitive learning and skill development in the process. This is not to suggest that preschool teachers dismiss the importance of the pre-numeracy and pre-literacy skills included within the construct of school readiness; clearly, educators from the current study support maintaining academic guidelines in preparing children for the transition to kindergarten. Rather, the importance of socio-emotional skill development might inform preschool teachers' understanding as they design and implement developmentally appropriate classroom activities that respect the hierarchical nature of children's learning. As many participants from the current study observed, children who are socially and emotionally prepared, “do better” academically.

Equally important, with regard to mezzo-level practice, is the support preschool teachers receive from school districts in the advancement of developmentally appropriate

practices across preschool curriculums. As the current study demonstrated, the majority of educators surveyed reported that “the primary function” of preschool education is to prepare children for academic challenges. Although many teachers also “strongly disagreed” with this conception of preschool education, there was enough distribution in responses to suggest that preschool curriculums are still in the process of ordering and distilling the construct of school readiness as it pertains to the goals and objectives of preschool education. As the importance of ECE gains critical popular and legislative support, there is value in continuing to temper and refine the definition of school readiness, such that it incorporates not just the dual elements of academic preparedness and socio-emotional competencies, but recognizes how these properties intertwine and influence one another in the service of developing the whole child.

On a macro-level, the task of clearly determining central goals and objectives for preschool education, either from a state or federal level, remains an active discussion in the ECE community. As the literature outlines, with the exception of the introduction of Head Start, preschool education has been characterized for generations as delivering more localized and community-based services, through a combination of funding resources that has naturally utilized less centralized curriculums. As ECE gains national momentum and social policies look to more federal and state funding for preschool programs, the question of how to define school readiness and how to measure the outcomes of preschool education gains even greater significance. To this end, the current study findings, with support from a review of the literature, suggest that ECE programs best prepare children for both academics and positive life-outcomes when delivery of

preschool education respects the hierarchy of learning and the importance of socio-emotional competencies as foundational to the construct of school readiness.

Subsequently, social work practitioners and policy-makers are well positioned to advocate for expanding early childhood interventions as they contribute valuable solutions to enduring and complex social problems—such as unemployment, crime, teen pregnancy, violence, health care, and substance abuse—problems that later interventions have had limited success confronting, and at far greater social and economic costs.

Social workers operating from an Ethic of Care perspective understand that individuals are vulnerable at multiple points along the life course and that providing early childhood interventions aids both disadvantaged children, as well as the greater society in terms of increasing human and social capital. By design, investment in early interventions promotes both individual and community well being, and directs social workers towards social policies that recognize the difficulty and expense of rehabilitative measures such as prison, vocational re-training, and chronic health or substance-abuse related programs. That is, the positive outcomes from preschool education include—but are not limited to—academic preparedness. Although children who benefit from ECE programs often do well in school, just as importantly, the successful development of social and emotional skills contributes to positive individual life-outcomes that, then, serve to build healthy families and communities.

Recommendations

Another outcome from examining the construct of school readiness and affirming the hierarchical nature of learning may be that preschools continue to teach *toward*

academic preparedness and continue to recognize that children’s successful socio-emotional development plays a critical role in their cognitive skill development. As preschools look to align with the elementary grades, it is conceivable that pre-numeracy and pre-literacy skill development may “overshadow” social and emotional skill building activities and instruction, as pressure to close academic achievement gaps continues to rise with the implementation of Common Core state standards in K – 12. Until all children arrive at preschool with equal advantages—economic and emotional security in the home, adequate nutrition and health care, safe neighborhoods and communities—children from more advantaged positions will likely meet academic achievement measures more readily than their less advantaged peers. Preschools, therefore, have an interest in establishing goals and objectives for preschool education that protect and defend the primacy of socio-emotional competencies.

As the current study indicated, the question of the “primary function of preschool” created the widest distribution in teacher responses, a finding that suggests preschool teachers may benefit from more clearly realized goals and objectives for preschool education. A potential risk is that children who do not immediately demonstrate the pre-numeracy and pre-literacy skills associated with a “readiness” to transition to kindergarten may be perceived as somehow lacking the cognitive skills for kindergarten, when it is conceivable the child is still developing the social and emotional skills necessary to proceed with more cognitive work. In this instance, the child may not be lacking in cognitive ability but lacks the socio-emotional skill development needed for listening and following instructions, or sitting down and working on a specific task. To

increase the amount of cognitive work being done at this point—perhaps in response to the perceived demands of Common Core and the elementary grades—may prove even more frustrating for the child, leading toward behavioral difficulties and furthering the perception the child is not ready for the transition to kindergarten. Instead, it is conceivable that increasing activities and instruction that build social and emotional competencies, setting aside specific cognitive tasks for the moment, may actually serve to assist the child in building the emotional self-regulation needed for later, more cognitive, task management. That is, the primary function of preschool should retain a conception of the preschool environment as it establishes the *context* for learning, with developmentally appropriate practices and instruction creating that structure.

Additionally, there may also be a potential risk in perceiving children’s differing abilities with specific cognitive tasks as an indication of a skill deficit, rather than an indication of a developing skill. As the elementary grades traditionally use cognitive measurements to identify “gaps” in achievement, there may be value in ensuring preschool curriculums’ assessment tools continue to measure and assist with children’s *development* over specific *achievement*. Understandably, preschool is concerned with aiding children’s transition to kindergarten and the elementary grades; however, it is important that as preschools seek to align more with K – 12, they do not permit the more centralized goals of the later grades to overly influence preschool education and the construct of school readiness as it pertains to developmentally appropriate practice and the hierarchical nature of learning.

With respect to the differences between the elementary grades and preschool, the

current study findings also recommend that preschool educators receive both equal compensation and equal respect to their K – 12 peers. Social work practitioners may advocate for future policies that recognize the significance of early childhood interventions, and by extension, the importance of maintaining and expanding a qualified and valued preschool teacher base. Therefore, future legislative efforts that respond to increasing demand for ECE programs, must necessarily attract greater numbers of qualified preschool teachers, instructional aides, and support staff to meet the multiple service needs of children and their families. As educators from every grade level have known for decades, the lack of compensation and respect for teachers demonstrates the society's unwillingness to value not just teachers, but children as well, a devaluation the Ethic of Care perspective seeks to remedy. In this regard, the recommendation made by one survey participant to retire the term "childcare" in favor of the phrase "Early Learning & Development," or ELD, is one step towards recognizing the need to shift the perception of ECE from the notion of simple "day care for children," to an emphasis on valuing children as human and social capital—individuals truly worthy of investment.

Limitations

Because the study used purposive, non-random sampling, threats to internal validity such as history, maturation, and regression to the mean, limit the ability to generalize the study's findings to other populations. Future studies may continue to discuss the evolution of the construct of school readiness, particularly with respect to the future of preschool's alignment with K – 12. As the goals and objectives of preschool education are defined against the backdrop of the more centralized, achievement-oriented

measures of the elementary grades, it may be worth examining to what degree preschool education may still retain its primary function as providing a socio-emotional based context for learning, while future legislation to increase funding for ECE may call for more centralized assessments to define a child's readiness to transition to kindergarten.

Conclusion

The researcher began the project with two essential research questions: What are the specific professional perspectives of preschool teachers regarding the impact and role of preschool education on school readiness and related factors? How does their understanding of school readiness affect preschool teachers' delivery of preschool instruction as well as their perspective of the outcomes of preschool education? In the process obtaining and discussing study participants' responses to these questions, the researcher was able to conclude that the construct of school readiness is best realized as a combination of inter-dependent cognitive and socio-emotional skills that indicate a child is ready for the transition to kindergarten—most notably that children's learning proceeds along a hierarchy of skill development, with socio-emotional skills providing the foundation for successive cognitive and academic ability. Study participants, while acknowledging the importance of maintaining academic guidelines in preparing a child for kindergarten, also recognized the importance of envisioning “the whole child,” and discussed the multiple positive life-outcomes that result from preschool education in addition to academic success.

Appendix A

Perspectives of pre-school educators on Early Childhood Education's (ECE) impact and role on school readiness and social/emotional development of children

Questionnaire

Please respond to the following prompts by selecting one of four choices below, ranging from--

1 - Strongly Agree, 2 - Somewhat Agree, 3 - Somewhat Disagree, 4 - Strongly Disagree

A. The History of ECE

1. Preschool, is a time to "nurture" children and emphasize their socio-emotional development over specific skill development.

1 - 2 - 3 - 4

2. There should be greater alignment between the curriculums of ECE programs and the elementary grades, particularly pre K - 3rd.

1 - 2 - 3 - 4

3. The goals and objectives of preschool include readiness for academic work, but teaching children life-skills such as how to create and sustain relationships is of equal value as preparing children to perform academic work.

1 - 2 - 3 - 4

4. Preschool "readiness" tests are necessary to keep ECE programs accountable and delivering appropriate experiences for preparing children for kindergarten and the elementary grades.

1 - 2 - 3 - 4

5. Preschool teachers should have thorough understanding of child developmental theories and knowledge of common developmental milestones.

1 - 2 - 3 - 4

B. Social and Emotional Competencies

1. Successful development of social and emotional competencies is necessary for cognitive learning as children's development proceeds along hierarchical lines--that is, "skill begets skill."

1 - 2 - 3 - 4

2. Children's emotional self-regulation skills have little influence on their cognitive skills and the ability to do academic work.

1 - 2 - 3 - 4

3. The ability to develop and maintain relationships with both peers and adults is one objective of preschool education but is secondary to developing skills such as pre-literacy and numeracy skills.

1 - 2 - 3 - 4

4. Social and Emotional competency skills are learned both in the home and in a preschool environment, elements that signify such skills can be taught

1 - 2 - 3 - 4

5. Children who demonstrate satisfactory inhibitory control (such as the ability to "delay gratification," or "resist temptation") are typically better problem-solvers and decision-makers.

1 - 2 - 3 - 4

6. The ability to "express emotions appropriately," meaning children who have the resources to "maintain positive emotions," are better equipped to manage classroom tasks, as well as engage positively with teachers and peers.

1 - 2 - 3 - 4

C. Cognitive Competencies

1. The primary function of preschool education is to ensure children are ready for the elementary grades and the challenge of academic work.

1 - 2 - 3 - 4

2. Specific tests measuring cognitive ability may predict a child's "readiness" to transition to kindergarten and are an accurate predictor of successful life-outcomes beyond academic learning.

1 - 2 - 3 - 4

3. Children who demonstrate difficulty with early learning tasks, such as pre-literacy or other cognitive skill development activities, may grow increasingly frustrated and become disruptive in class.

1 - 2 - 3 - 4

4. In order to develop greater cognitive skills, activities should challenge children at the "edge" of their ability, meaning the child can accomplish the task with some assistance.

1 - 2 - 3 - 4

5. In my classroom I am aware of the cognitive skills children will need to develop to succeed in kindergarten and I plan activities and lessons to meet these expectations.

1 - 2 - 3 - 4

D. Outcomes of Preschool Education

1. Preschool and ECE programs may benefit individual children but it is difficult to state the benefits these programs contribute to society.

1 - 2 - 3 - 4

2. Extending ECE programs and increasing access to child care services are cost effective (high cost-benefit) in the long term.

1 - 2 - 3 - 4

3. My school maintains a diverse curriculum that recognizes the value of preparing children for the difficult transition to kindergarten and the need for developing cognitive abilities.

1 - 2 - 3 - 4

4. My school also recognizes the value of developing children's social-emotional competencies as they contribute measurably to overall positive life outcomes.

1 - 2 - 3 - 4

5. In my perception, my school successfully prepares children for the transition to kindergarten and for meeting challenges outside of academic work, such as inter-personal relationship, self-management, and problem-solving skills.

1 - 2 - 3 - 4

6. ECE programs in the United States are currently undervalued in the scope of providing solutions to complex social problems.

1 - 2 - 3 - 4

Appendix B

Perspectives of pre-school educators on Early Childhood Education's (ECE) impact and role on school readiness and social/emotional development of children

Consent to participate in the study

You are being asked to participate in research which will be conducted by Tod Buis, a graduate student in the Social Work department at California State University, Sacramento. The purpose of the study is to solicit the professional opinions of preschool educators regarding school readiness and the related outcomes of preschool education. This information is important because of its implications for social work research and early childhood education (ECE) policy.

You will be asked to complete a questionnaire and respond to various statements concerning school readiness and preschool outcomes on a scale from "strongly agree - strongly disagree," as well as complete a few brief short-answer open-ended questions. The survey may take approximately 30 minutes of your time.

No risks are expected from participating in the study, and you are not required to answer any questions you do not wish to respond to.

You may not personally benefit from participating in the study. However, studies such as this one contribute to a greater understanding of the perspectives of professional educators working in the field of early childhood education, information which may ultimately add valuable insight to the existing knowledge of researchers and policymakers. The hope is that such studies may add the voices of educators actually working with children (as opposed to purely researchers and lawmakers) to the discussion on ECE curriculum and policy decisions.

Your responses to the questionnaire will be both anonymous and confidential, meaning that there will be no way for the researcher to identify your individual responses to the questions as distinct from any other participant in the study. However, the collective, thematic results of the study as a whole may be shared with the social work and ECE community and become a matter of public record. All completed questionnaires collected will be private and kept safe with the researcher who is the only person with access to the information provided. All returned questionnaires will be destroyed at the completion of the study, June 2014.

You will receive a \$5 gift card for Starbucks Coffee for participating in the study.

If you have any questions regarding this research, you may contact Tod Buis. You may also contact the researcher's advisor, Dr. Jude M. Antonyappan.

You may decline to participate in this study without any consequences. Your signature below indicates that you have read this page and agree to participate in the research.

Signature of Participant

Date

Appendix C

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

DIVISION OF SOCIAL WORK



To: Tod Buis

Date: October 17, 2013

FROM: Research Review Committee

RE: HUMAN SUBJECTS APPLICATION

Your Human Subjects application, for your proposed study, “Perspective of Pre-School Educators on Early Childhood Education’s (ECE) Impact and Role on School Readiness and Social/Emotional Development of Children”, is **Exempt, subject to the required modifications.**

Discuss your next steps with your thesis/project Advisor. After making the required modifications, please return your application to the Social Work office Attn: Research Review Committee Chair, Dr. Maria Dinis. Be sure to address the specific modifications noted below. Be sure and attach **a copy of this letter when you return your application with changes noted.** You must have your **thesis Advisor sign-off on this letter** before you resubmit your application to the committee. The required modifications specified must be satisfied and approved by the Research Review Committee before you can initiate contact with research participants.

Your Human Subjects application Protocol # is: **13-14- 020.** Please use this number in all official correspondence and written materials relative to your study.

Required Modifications:

Required Modification 1	Need signed letters on official agency letterhead from <u>First Five</u> and <u>The Mind Institute</u> .
Required Modification 2	

Thesis Advisor signature: _____

Review Committee Members: Professors Maria Dinis, Jude Antonyappan, Serge Lee, Francis Yuen, Kisun Nam, Dale Russell,

Cc: Antonyappan

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