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UNIVERSAL PREKINDERGARTEN EFFECTS ON LANGUAGE CONCEPT
ACQUISITION AND THE LINKAGE TO CLASSROOM PRACTICES AND
QUALITY

a dissertation

by

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To the UPK classroom teachers whose use of “powerful” language encourages
and inspires children daily and more importantly, makes a difference!

Be proud.

Your work made this research possible.

Abstract

Universal PreKindergarten (UPK) Effects on Language Concept Acquisition and the Linkage to Classroom Practices and Quality

by

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The emergence and establishment of Universal PreKindergarten (UPK) programs in New York school districts have proliferated over the past ten years; nonetheless, limited attention has been paid to the *process quality* dimensions of these programs (Mashburn, Hamre, Downer, Barbarin, Bryant, Burchinal, Early, & Howes, 2008). Existing studies related to preschool quality in New York State have revolved primarily around the *structural qualities* of the program, leaving opportunity for research that focuses on how district UPK classroom practices align with process dimensions and affect student achievement in language and literacy development (Camelli, Vargas, Reynolds, Barnett 2010; Lowenstein, 2011; & U.S. Department of Health and Human Services, 2013). Through the examination of a state-funded, district-operated, UPK program, this study demonstrated a moderately strong association ($r = .58$) between language concept development in young children and attendance in a UPK program that promoted and reinforced *process quality*. Results indicated significant language concept growth for students attending the UPK program based on the Boehm-3 Preschool Test of Basic Concepts (Boehm, 2001b), with the greatest gains posted by students eligible for free and reduced lunch and for those considered English Language Learners. Upon entrance to kindergarten, students who attended the UPK program had higher language

concept scores compared to peers who experienced other preschool options.

Observations conducted in the UPK classrooms confirmed the use of effective instructional practices to promote language and literacy development in young children and were consistent with the quantitative results.

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Chapter I

Introduction

Preschool programs across the country vary according to state funding and technical assistance, but historically, New York has uniquely supported the concept of state-funded preschool. The roots of this advocacy stem from the Experimental PreKindergarten (EPK) initiative that began in 1966 with funding for 39 school districts to serve 2,651 children in disadvantaged areas. In the monograph, *The State with Two Prekindergarten Programs: A Look at Prekindergarten Education in New York (1928-2003)*, Anne Mitchell (2004) provides a detailed account of the events leading up to the establishment of state-funded preschool programs in districts across New York State. After a series of government proposals for expansion and similar attempts at dissolution, in 1997, the legislature passed an education reform bill that included a five-year commitment to fund Universal PreKindergarten (UPK) for four year olds, while maintaining the existing funds for Target PreKindergarten (TPK), formerly called Experimental PreKindergarten (EPK). A total of \$67 million was appropriated for the start-up of state-funded prekindergarten programs in the 1998-99 school years. These new funds were allocated to eligible districts based on need and on the number of qualifying four-year-old residents. The intent of this reform bill was to financially support expansion each year so that by 2001 all the districts across the state would be eligible for program funding (Mitchell, 2004). As promised, funding did grow to \$200 million allowing upwards of 200 districts the opportunity to open similar programs; however, the allocation was less than adequate for expansion to all districts (Schilder,

2011). It wasn't until 2005 and 2006 that the funding increased to a level sufficient enough for the majority of districts to offer services to four-year-olds, regardless of income. This landmark accomplishment signified a major step forward in the statewide movement toward UPK. In 2007, all state-funded preschool programs were rolled into a single system to support the efforts of districts and agencies that collaboratively operated programs to serve all students. Undeniably, New York State's substantial and rapid increase in funding acknowledged the importance of providing an enhanced public educational experience for four year olds, provided by highly educated teachers who use research-based curricula, in order to prepare them for kindergarten ready to learn (Schilder, 2011). The fluid attitude and courageous stance taken by state policy makers in support of prekindergarten is reflected in this quote by Franklin Delano Roosevelt (FDR), "We cannot always build the future for our youth, but we can build our youth for the future." FDR's sentiment also reflects the belief of those involved in the establishment of the first UPK program in a small, city school district located in upstate New York. In 2006, upon notification that state funds were finally sufficient to open three prekindergarten classrooms, the district administrative team responded immediately to implement its reserved plans.

The Universal PreKindergarten Plan

Armed with state guidelines, experience, and the foresight to focus on quality and effectiveness, a dedicated group of administrators developed a comprehensive program that would build and strengthen the abilities of the district's four-year-old population to advance their school achievement and to shape their futures. The significance of this district's prekindergarten effort stems from the focus on individual student progress to

determine the acquisition of language concepts and vocabulary, emergent literacy, numeracy, and social-emotional development. It also represents a good faith attempt to substantiate program quality and determine program effectiveness through the examination of student achievement data.

Exploration into the working features of the district's prekindergarten program established the presence of four classrooms staffed with a teacher and a teacher assistant. Of the four teachers, three had a Master's Degree and one a Bachelor's Degree in the process of obtaining a Master's; all four teachers were experienced early childhood educators. The maximum class size for every room was 18 students. Program instruction focused on the development of cognition, language, early literacy, numeracy, motor skills, and social emotional regulation accomplished daily through teacher and peer interactions. The program's mission reflected the values of the staff and administration in its expressed statement, which also conveyed the overall program belief that: all children can learn, make developmental progress, and achieve.

Initially, Creative Curriculum® (Dodge, Berke, Bickert, Burts, Colker, Copley, Dighe, Heroman, & Jones, 2002) was chosen to guide the teaching process; however, this curriculum was abandoned after a year due to a perceived lack of rigor and specificity of student achievement. After careful consideration of the current literature, including a thorough examination of the state standards and several early childhood curricula, it was agreed that published materials were not comprehensive enough, nor were they well aligned with the available New York State Pre-K Learning Standards (2006). In response, the district drafted a specific curriculum and then revised it to reflect the New York State Prekindergarten Foundation for the Common Core (2011), New York State's

Early Learning Guidelines (2012), and New York State Core Competencies for Early Childhood Educators (2012). During the curriculum development process, consideration was also given to the *indicators of effectiveness* set forth in the joint position paper of National Association for the Education of Young Children [NAEYC] and National Association Early Childhood Specialists in State Departments of Education [NAECSSDE], (2003). This joint position paper identifies eight indicators of effectiveness necessary to

“... implement a curriculum that is thoughtfully planned, challenging, engaging, developmentally appropriate, culturally and linguistically appropriate, responsive, comprehensive, and likely to promote positive outcomes for all young children” (p.2).

The eight indicators of curriculum effectiveness include:

1. Children are active and engaged.
2. Goals are clear and shared by all.
3. The curriculum is evidenced-based.
4. Valued content is learned through investigation, play, and focused intentional teaching.
5. The curriculum is built on prior learning and experiences.
6. The curriculum is comprehensive.
7. Professional standards validate the curriculum’s subject matter content.
8. The curriculum is likely to benefit children (NAEYC & NAECSSDE, 2003).

While taking into account both the standards and the effectiveness indicators; the district curriculum was created based on nine chosen domains. The domains were further broken down by specific student outcomes to stipulate expectations for acquisition of

knowledge and skill.

Following are the nine program domains that constituted the district UPK Curriculum:

1. Physical Development
 - Sensory & Motor
2. Personal Health and Safety
 - Hygiene & Safety
3. Communication, Language, and Literacy
 - Speaking, Listening, Writing, Motivation to Read, Phonological & Phonemic Awareness, Alphabet Awareness & Phonics, Book & Print Concepts, Vocabulary & Background Concepts, Comprehension
4. Cognition and Knowledge of the Worlds
 - Number Concepts, Beginning Principles of Addition & Subtraction, Geometric & Spatial Relations, Directionality, Order & Position, Classification & Arrangement of Objects, Measurement
5. Social Emotional Development
 - Self & Others
6. Social Studies
 - Myself, My Family & Other Families, My Community, Spatial & Geographic Thinking, Civics, Citizenship & Government
7. Science
 - Physical Properties, Living Things, Earth & Space, Scientific Thinking
8. The Arts
9. Technology

These domains and outcomes were reviewed periodically and updated to maintain the integrity of the program and to benefit the students. To ensure sound decision making, provide consistency across classrooms, and improve instructional practices for implementation of this curriculum, the teachers and administrators met on a regular basis to review program goals and evidence-based practices. Professional development occurred systematically so staff could stay abreast of early childhood research and best practices in their sustained effort to promote student achievement of the early childhood core competencies. To maintain this focus and uphold fidelity, multiple measures were used to follow and verify student performance including: standardized pre- and post-tests, criterion-referenced checklists, student portfolios, direct observation, and curriculum-based benchmarks for ongoing progress monitoring of early literacy and numeracy skills.

In its efforts to further establish the quality of the program, the district participated in a state sponsored pilot project to evaluate preschool programs. One of the evaluation components involved classroom observations by an independent, outside evaluator. The evaluator used the Early Childhood Environment Rating Scale Revised [ECERS-R] (Harms, Clifford, & Cryer, 2005) to measure classroom effectiveness and provided feedback based on rating results. Additional information about this pilot project and the value of the evaluation is provided later in the chapter.

What resonated most after exploring the characteristics of this UPK program was the district's commitment to building a program of excellence. Despite these efforts, an important program attribute was glaringly absent. Although the district participated in the state evaluation pilot project, there was no meaningful verification of the program's quality related to the positive academic and social achievement of the students it served.

It was from this perspective that the district's UPK program provided the backdrop for inquiry into the effectiveness and quality of prekindergarten programs.

Background

Initial inquiries into the existing research found the last formal study designed to evaluate quality of New York state-funded preschool programs was a meta-analysis that reviewed ten different state programs from 1977 - 1998 (Gilliam & Zigler, 2001). The study results were positive; however, the investigated program was based on the original 1966, New York Experimental Prekindergarten Program (NYSEPP). Therefore, the outcomes from that program would not be considered reliably reflective of the state-funded programs that currently exist.

To address paucity of knowledge related to student achievement and program quality, I examined the effectiveness of a prekindergarten program located in an upstate New York school district based on student data representative of language concept achievement. The prekindergarten program was housed in a district that served a student population of approximately 2,000 in grades K-12, with a total of five schools in the district: three neighborhood elementary schools, one middle school, and one high school. In 2007 and 2008, the initial program years, the preschool enrollment was limited to 55 students across three classrooms. In 2009, an increase in state funding and an agreement to increase the collaborating agency class size allowed for an additional classroom. The prekindergarten class size was determined through use of best practice guidance for early childhood ratios (keeping the number of students in each class to 18 or fewer), collaborating agency guidelines for class size, and the funding allocation of the state. There were four prekindergarten classes located in one elementary building as of 2012,

with a total enrollment of 72. At that time, program expansion was uncertain due to state funding freezes and local fiscal constraints; hence, the realization of universal access to prekindergarten for every four-year-old district resident remained elusive.

Germane to this study is the historical background of the city encompassing the district. Thirty years ago, this small community of working class, White populace (most of whom were first-generation European immigrants of Polish and Russian descent) thrived in a town supported by industries that included paper mills and textile plants. Between 1970 and 2000, the economy shifted dramatically due to the decline of the textile industry in the area, which caused the factories to shut down and many businesses to all but disappear (Bergman & Associates, 2010). At the same time, many families were influenced by suburbanization leading to further erosion of the city's tax base. These factors resulted in an overall declining population in the city center and an increase in the available housing units, thereby leaving the housing market vulnerable to buyers interested in obtaining properties for rental income. As of 2012, 55% of the occupied housing within the city were considered rental units (Cornell University, 2010); these units included family-owned buildings, subsidized housing projects, and rentals owned by absentee landlords. Property owners who lived out of the area were known to have less community involvement; therefore, very often these properties were neglected. This pattern resulted in a selection of undesirable or unsafe housing units with rent rates cheaper than those found in surrounding cities. Moreover, the low-cost rental units often violated city safety-code requirements, causing high turnover rates, which created a more transient population and an increase in student movement. The consequence of this large percentage of rentals was evidenced by the district's high count of student transfers and

increased transportation costs due to homelessness. In turn, there was a demographic shift within the city. While remnants of professional class families remained, as verified by the 42% with income levels between \$50,000 to \$250,000; younger families were also moving into the district from larger neighboring cities, in many cases for the lower cost rental units (Economy in NY Cities, 2013). Furthermore, the information collected from the Cornell University School District Data (2010) and the New York State District Report Cards (2003-2011) indicated a decline in overall district enrollment; in spite of the decline, the number of students known to receive free and reduced lunch continued to increase (Figure 1).

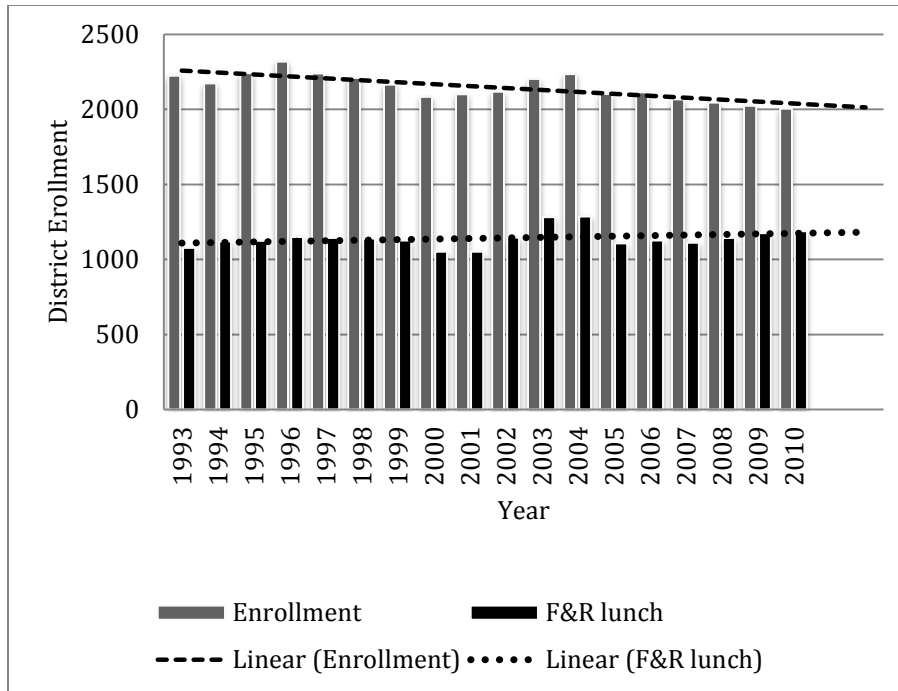


Figure 1. *District enrollment and free & reduced lunch eligibility trends between 1983 and 2010, Cornell University (2010) & New York State School District Profile (2011).*

School district trends in Figure 1 show a decrease in the total school district population from 2225 students in 1993 to a student number that hovered around 2000 in 2010. At the same time, the number of students qualifying for free and reduced lunch increased from 1077 in 1993 to 1184 in 2010. Further examination of the trending projection for both enrollment and free and reduced lunch, suggests eventual convergence of these two factors if cohort data continues on the current trajectories. The merger of these two lines would result in a very high percentage of the student population living in lower than average socio-economic conditions.

Another changing demographic in the district was the racial/ethnic origin of the students. Trending data indicated a student population shift from 98% percent white in 1993 to 76% in 2010. The number of students registered as African-American had risen from .01% of the student body in 1993 to 15% in 2010 with the remaining 9% of the

students comprised of those who were Hispanic/Latino (4%), Asian or Other Pacific Islander (1%), and Multi-Racial (4%) according to the 2010 District Profile (New York State Education Department [NYSED], 2011). These percentages, however, were not always a true indication of the district population, as many parents reported their children in the Caucasian category rather than Hispanic or African-American on district prekindergarten registration forms. A small population of English Language Learners (ELL) whose primary language was Russian or Ukrainian had always been present in the district. Since the early 1990s, the number of ELL students in the district population had grown from 1% to 3% (Cornell, 2010); the overall percentage change was not remarkable, but the addition of languages such as Spanish, Urdu, Turkish, Arabic, and Pashto was significant. While all of these factors added new variations to the district population, the most noticeable was the children enrolling from lower socio-economic situations as determined by their free and reduced lunch eligibility. This, more than any other demographic variable, contributed to the changing population of the school district.

Despite the declining physical and economic conditions in the city and the shift in student population, community members and school employees had always taken great pride in the education afforded its residents. This comparatively high morale and positive regard was verified by a teacher turnover rate of just 6%, as well as the district's continued efforts to maintain a 'good standing' rating status on the yearly District Report Cards; a state accountability measure that takes into consideration the Adequate Yearly Progress (AYP) of both the aggregated and disaggregated groups related to their corresponding test results (NYSED, 2010-2011). Still, the disparities among student needs were becoming more apparent and the state test scores were declining each year.

According to the available archived data found on the NYSED website, in 2006, at the elementary level, on average, 75% of the students in grades 3, 4 and 5 were at or above proficiency in mathematics, and 70% were proficient in English Language Arts. That number has decreased to approximately 60% at or above proficiency in both content areas in the years following. Additionally, the available data showed the high school average pass rate on Regents exams in 2002 ranged from 80-85% in all subject areas; in 2010 the pass rate was between 70-75%. Although several factors may have influenced the decline in scores, including changes in state assessments and a more rigorous core curriculum, there was little question that the influx of a more diverse student population living below the poverty threshold had become an increasingly pressing factor for district educators. The nuances of teaching an already heterogeneous group of learners was further heightened by increased poverty, language barriers, transience and homelessness as depicted by student enrollment records. Rethinking the system to effectively meet the needs of all learners in the district rendered teacher professional development and new program initiatives two ongoing priorities of the administration. The establishment of a prekindergarten program was one of the change initiatives embraced by the district to address the variability in student needs and the growing decline in student achievement.

Statement of the Problem and Purpose

Although the National Early Childhood Accountability Task Force (2007) emphasized student outcomes as a measure of preschool program quality, there continues to be a shortage of studies examining the quality of district-operated, state-funded, prekindergarten programs in the area of program effectiveness based on student achievement and the subsequent relationship to school readiness and future success

(Camelli, Vargas, Reynolds, Barnett 2010; Lowenstein, 2011; & U.S. Department of Health and Human Services, 2013).

Presently in the state of New York, there is little evidence to demonstrate the value of state-funded prekindergarten programming on student achievement in specific areas of language and literacy development. One reason is the relative newness of prekindergarten programs in the majority of districts and the absence of a formal state system. In 2010, the state began field testing QualitystarsNY (New York State Early Childhood Advisory Council [NYSECAC], 2013), a rating and improvement system used to designate program quality based on the completion of an all-encompassing application process, including a classroom observation component. QualitystarsNY (NYSECAC, 2013) is now available statewide to any state-regulated program serving young children including: child-care centers, family and group child-care providers, Head Start programs, school- and community-based UPK programs and other registered nursery schools. The 2012-2013 school years represented the early stages of implementation with 400 of the 20,000 state-approved programs across New York having voluntarily adopting QualitystarsNY (NYSECAC, 2013). This number will undoubtedly grow as more programs seek to demonstrate quality through a state-endorsed system. For those programs that participated in QualitystarsNY, including the UPK program in the district of study, the benefits included a small financial stipend and the anticipation of a rating that would promote an assurance of program quality within the community. Points for quality were awarded according to specified criteria and based on evidence related to the QualitystarsNY Standards for Public School Operated UPK Programs (NYSECAC, 2013). Development of the New York State standards was based on the accreditation

standards of the National Association for the Education of Young Children (NAEYC, 2003), New York State regulations for child-care and prekindergarten programs, Head Start Program Performance Standards and the Environment Rating Scales (ERS). The four standard categories: Learning Environment; Family Engagement; Qualification and Experience; and Management and Leadership were intended to provide New York State with a common understanding of the elements of high quality. Participation in the QualitystarsNY (NYSECAC, 2013) process involved rigorous procedural requirements and necessitated the submission of extensive documentation on the part of the program administrators. To assess the Learning Environment standard, a program administrator and an independent evaluator conducted classroom observations using the Early Childhood Environment Rating Scale [ECERS-R] (Harms et al., 2005). The remaining three standards were substantiated through documented examples and supporting statements of purported use. Program quality was rated on a scale of 1 to 5 with 5 being the highest and was determined based upon a combination of the two classroom observations and the submitted documentation. In most cases the points awarded for each component within a standard made sense; yet other components such as the requirement of an anti-obesity protocol, while critical to a child's health, did not speak to the overall quality of a prekindergarten program. The main drawback to this quality monitoring system was the absence of student achievement data to determine program effectiveness; a deficiency that has not changed.

Based on the work of LaParo (2004), Mashburn, Hamre, Downer, Barbarin, Bryant, Burchinal, Early, & Howes (2008) and Pianta, Howes, Burchinal, Bryant, Clifford, Early & Barbarin (2005), the two broad definitions most often used to determine

quality of preschool programs are *structural features quality* and *process quality*.

Structural features include those that can be directly regulated by policy, such as certification, training, class size, curriculum, and additional services related to meals, health, and screenings. Conversely, process features are those that occur inside the classroom and are experienced by children directly through their interactions with the teacher. More specifically, these experiences are "... interactions that effectively promote and extend children's academic, language, literacy, and social developments" (Mashburn et al., 2008, p. 16). Research has further suggested that knowing the differences between structural features and process is important to the definition of quality since a number of studies have demonstrated strong evidence that children enrolled in classrooms with higher process quality derived greater benefit compared to children who attended programs that did not stress process quality (LaParo, 2004 & Mashburn et al., 2008). The QualitystarsNY (NYSECAC, 2013) system included a direct classroom observation as a process feature; yet, the primary focus was on the structural features of the program. Additionally, there was no expectation or obligation within the rating system to conduct ongoing assessment of individual student progress in language, literacy, or numeracy for the purpose of instructional decision-making, measuring children's development, or determining overall program effectiveness. As a result of the relative newness of QualitystarsNY (NYSECAC, 2013) and lack of documentation to substantiate student learning, it was impossible to gauge the efficacy of most existing New York State-funded preschool programs and their subsequent contribution to the acquisition of skills that lead to school-age success. Consequently, if one considers the best measure of preschool quality to be a combination of structural features and process

features in the form of ‘rich’ and proven classroom interaction practices, along with documentation of student achievements through formal measure, then any system that does not include all of these components fails to paint a complete picture of quality (Pence, 2008).

In short, there are historical underpinnings that have contributed to the development and operation of state-funded preschools in New York, which in turn have bearing on what is known about the efficacy of quality UPK programs and their effect on student language development and reading achievement.

Hypothesis/Research Questions

The purpose of this research study was to examine the quality of one district’s UPK program using measures of individual student achievement supported by classroom observations. My study subscribed to the overarching hypothesis that a language-rich classroom environment increases students’ language concept acquisition at the end of the UPK program experience. I further hypothesize that the students who attend the district UPK program demonstrate stronger language concept ability upon entry to kindergarten than students who did not attend the UPK program.

To substantiate these hypotheses, this research study addressed three distinct questions:

1. To what extent did students show growth between pre- and post-test scores on the preschool test of language concepts as a result of attending the district UPK program?

2. How did the pre-test scores on the primary version of the language concepts test compare between kindergarten students who participated in the district UPK program and those who did not?
3. What research-based instructional practices used in the UPK classrooms contributed to the development of oral language and how did those practices support students' acquisition of basic language concepts prior to kindergarten?

For this study, characterized as a mixed method convergent design, I collected both quantitative and qualitative data simultaneously to obtain answers to these research questions. This type of design provided a comprehensive inquiry into preschool practices and therefore enhanced the integrity of the findings. To address the first two questions, the study utilized retrospective, archival records of preschool attendees from 2009 - 2011 and entering kindergartners from the years 2010 - 2012. Specifically, the data consisted of student scores obtained from the results of the Boehm Test of Language Concepts 3rd Edition Preschool (2001b) and the Boehm Test of Language Concepts 3rd Edition (2001a). The qualitative aspect of this design was used to ascertain any relationship between the levels of student performance on the language concept assessment and classroom language practices. To further validate the observational information, the four domains of the Early Literacy and Language Observation Pre K Tool [ELLCO] (Smith, Brady, & Anastasopoulos, 2008) were used as a comparison rubric.

These integrated findings have potential to inform the New York State Education Department Office of Early Learning of the following: language assessment results, the relationship of the assessment to language instruction in the classroom, and how the overall quality of one district's UPK program was substantiated by student data. The

study outcomes can also serve as a springboard for professional development and effective teaching practices of prekindergarten teachers. This study was designed to illustrate how educators and policy makers can promote and strengthen the language-literacy relationship in prekindergarten to narrow the achievement gap prior to students entering kindergarten. It may also be of particular interest to researchers, practitioners and policy makers in their identification of specific literacy practices in the prekindergarten classroom that support the acquisition of critical language concepts. Additionally, the results have been incorporated into a presentation to be shared with the New York State Education Department to demonstrate the value of a quality UPK program on student achievement and the cost-benefit of funding UPK expansion, especially in districts that provide education for students who have traditionally exhibited lower achievement on literacy assessments.

Best Practices in Language and Literacy

Language acquisition in the early years has been examined extensively over the last two decades and is verifiably the cornerstone of later reading achievement and academic success. Additionally, the use of distinct practices in the preschool classroom to develop the “tool skills” of literacy have been found to be a contributing factor to the outcome of children’s language and literacy abilities in later years (Piasta & Wagner, 2010). The study of emergent literacy has also evolved in recent years, but continues to be controversial depending on the researcher’s perspective. “Emergent literacy” is a term coined by literacy expert Marie Clay in the mid-60s to describe the mirroring or imitating behaviors of young children as they attempt to engage in early literacy tasks. According to Clay’s theory, children who imitate reading and writing activities are in fact displaying

“literacy like” skills, and this essential skillset is needed prior to demonstrating the ability to actually read and write letters, words, and sentences. This type of literacy development is also nourished by social interactions and language discourse, along with exposure to literacy materials, such as children’s storybooks (Johnson & Sulzby, 1999). According to Rhyner, Haebig and West (2009), in their chapter, *Understanding the Frameworks for the Emergent Literacy Stage*, there exist three distinct frameworks of “emergent literacy”, and each has distinguishing characteristics among young learners. The authors stated there is agreement among researchers that, “...emergent literacy represents the beginning of a continuum of literacy development in children” (p.7) and “... that growth in any area results from a complex interaction of child and environment variables” (p. 11). However, the what, when, and how of acquisition remain difficult to delineate, and thus create opportunities for continued research on the topic. In order to categorize the research conducted for this study, a brief explanation is provided on the various frameworks emerging from three main theoretical perspectives of literacy development (Rhyner et al., 2009).

The first theoretical perspective is the *Developmental Perspective*, which is supported by the works of Goodman, Strommen & Mates and van Kleeck. This theory emphasizes and is based on the need to understand the connection between print and meaning before a child can comprehend print form. In other words, children must follow a progressive sequence of experiences that includes an introduction of print media, along with awareness of the associated language for the eventual acquisition of emergent literacy knowledge and skills. By contrast, the research of Storch & Whitehurst, and to some extent van Kleeck, endorsed a second theoretical perspective, the *Components*

Perspective, which categorizes emergent literacy skills into those that are code-related skills and oral language skills. Code-related skills include print conventions, beginning writing, grapheme knowledge, and grapheme-phoneme correspondence; while oral language skills encompass semantic knowledge, syntactic knowledge, narrative discourse, and conceptual knowledge. According to this framework, the acquisition of both oral language and code-related skills is what establishes the foundation for literacy. The third theoretical perspective is the *Child and Environmental Perspective*, which represents the most recent of the frameworks. This perspective, endorsed primarily by McNaughton and Wasik, proved unique from the other perspectives in that it acknowledges the influence of both the individual child factors and the environmental factors in the development of emergent literacy. The factors involved can be exclusive or the result of complex interactions between them and may affect a child's literacy development either positively or negatively, depending on the extent of influence. Within this framework, the following elements are considered to affect the literacy outcomes of children: the level of participation in literacy-related activities, language proficiency, cognitive abilities, literacy interests, attention, and overall health. Additionally, environmental considerations such as the child's everyday physical setting, the individuals who interact with the child regularly, the exposure to literacy materials, as well as the experiences and opportunities afforded the child, all play important roles during the emergent literacy stage (Rhyner et al., 2009). Each of the above emergent literacy perspectives has both documented and demonstrated effective literacy development in children through experimental studies; therefore, it can be concluded that there is considerable overlap in researcher positions and "approaches that reflect the use

of combined perspectives offer a comprehensive approach to intervention” (Rhyner, Haebig & West 2009, p.30). Thus, a selection of seminal and current research that demonstrated positive outcomes in early literacy achievement, based on either a single perspective or a combination of these perspectives, was judiciously reviewed for this study in an effort to identify instructional practices involving the use of oral language that support emergent literacy development for children attending preschool.

Preschool Availability and Quality

One of the greatest challenges facing school districts is the nature and extent of a child’s language and literacy experiences prior to entering kindergarten. Goldstein (2011) succinctly described the literacy exposure disparities that exist among preschool entrants in this way, “... the world of language varies considerably for children” (p. 271). These language differences are often attributed to socio-economic status and can also be related to the amount of “literacy socialization” that occurs across home environments (Hart & Risley, 2003; Snow, Burns, & Griffin, 1998; & van Kleeck & Schuele, 2010). Literacy socialization includes access to books, magazines, pictures, toys that relate to book characters, alphabet blocks, and games. Frequently, these cognitive supporting materials are more restricted or lacking in lower-income homes resulting in the likelihood of less language exposure. Lack of language exposure and literacy socialization affects a child’s language development and thus has implications for the type and frequency of language opportunities provided in a preschool program (Dickinson & Porche, 2011).

In past decades, the majority of children entering kindergarten had little to no formal prekindergarten experience; the acquisition of pre-literacy skills relied solely on the language practices within the home environment (Hart & Risley, 2003). Those

children who did attend prekindergarten programs typically had few choices: private preschools/nursery schools, Head Start, or child-care settings. These options were further limited and significantly informed by the child's socio-economic status. Based upon existing curricula expectations and the fact that kindergarten in most states is not mandatory, the practice of limiting choices based on income level criteria has become a widely discussed and often debated political agenda. As a result this issue has been comprehensively addressed in some states through the establishment of publicly funded prekindergarten programs. According to the 2011 National Institute for Early Education Research (NIEER) *Preschool Yearbook* (Barnett, 2011), 39 states supported state-funded preschool programs. Enrollment, depending on the state, ranged from 1.6% to 71% of the total eligible children.

With the commencement of common core standards and rigorous standardized achievement testing beginning in third grade, research suggests that children who have not acquired a solid language base are at an extreme disadvantage upon entrance to kindergarten (Roos & Weismer, 2008). The identified gaps in student readiness and achievement have been compounded by recent societal changes including the amplification of diversity, fluctuation in family lifestyles, increased student mobility, and the upsurge of government involvement in education, thereby creating an immediate need to expand quality early childhood education options (NIEER, 2011). The most significant addition to the available preschool choices in New York State has been the state-subsidized UPK, a program for four year olds that directed funding through local school districts with a stipulation that 10% of the funds be used to collaborate with community-based agencies that also serve preschool-age children. These UPK

classrooms could be located either within district schools or at off-site locations. In 1997 New York State launched its UPK effort. At that time, only 65 of the approximately 700 districts in the state were able to move forward with prekindergarten program plans due to funding limits and lack of available local resources. In 2006, New York State's UPK program merged with what was known as the TPK program, a state-funded initiative offering services only to children of low-income families. This merger provided additional funding for New York State districts to open and operate UPK programs for resident four year olds, regardless of income (Eastham, 2010). As of 2013, allocations from New York State had yet to provide sufficient funding to keep pace with the total eligible four-year-old statewide enrollment; therefore, many districts, including the one discussed in this study, were forced to implement a lottery system whereby students had to be placed on waiting lists, which resulted in less than 50% of eligible children participating each year. The inability to serve all eligible children has been and continues to be a critical concern to both proponents of state-funded early childhood education programs and to school districts. This concern stems from the number of children who are placed at risk when they start school, often as a result of their inability to access a viable early childhood program, leading to significant gaps in academic and social development in kindergarten and beyond (Doggett & Wat, 2010).

Equally important as the program accessibility challenge, is the more poignant issue of high-quality program availability. A 2004, National Institute for Early Childhood Education (NIECC) analysis found that 78% of the three and four year olds from families with incomes over \$100,000 attended preschool; in contrast less than half of the children from families with incomes under \$50,000 attended, demonstrating how socio-economic

status can affect preschool attendance and ultimately school readiness. The representation of preschool enrollment was further troubling when broken down by race and ethnicity; however, this discrepancy was not due to accessibility issues, but rather the quality of the programs available (NAEYC, 2009; Sadowski, 2006). The research found that when children, generally those from low-income homes, spend their prekindergarten years in programs or child-care settings that lack structure and tend to allow more self-directed play, the focus is often less goal-oriented and seemingly lacking in academic learning targets. Additionally, the quality in some child-care settings is compromised because of under regulation or a lack thereof, which in some cases can lead to potentially harmful effects on children (Adams, Trout & Zaslow, 2007). Settings of this nature often center more on child recreation and less on overall learning, making transition and adjustment to school age programs much more difficult and often place children at risk for overall achievement (Magnuson, Ruhm & Waldfogel, 2004; Ruhm & Waldfogel, 2011). Clearly, it is not just program availability that makes the difference in student achievement, but the accessibility to high-quality early childhood programs that prepare children accordingly and contribute to later success.

Pence (2008), explained the importance of a quality program in terms of *systematicity*. This is defined as the degree to which a preschool program's objectives, activities, and materials are consistently aligned. Pence further suggested that the presence of systematicity increases the likelihood of program quality because the teachers and staff know what to do, how to do it, and why they are doing it. Hence, a program of quality aligns expectations with an appropriate curriculum to promote student

achievement in language, literacy, numeracy, and social skills while ultimately fostering school readiness.

The topic of quality has been elevated to yet another level of attention as a result of the position statement set forth by the National Association for the Education of Young Children (NAEYC) on Developmentally Appropriate Practices (2009). This position statement reflected the shift in both the perspectives and priorities of early childhood education based on recent studies and their subsequent findings. It also served to promote excellence among early childhood educators by providing a framework for best practices in light of the changes in preschool education purpose and in recognition of the preschool/elementary blurring of boundaries. For example, the organization's statement acknowledged and agreed with the research that credits high-quality preschool programs to the implementation of "process features" such as: patterns of teaching and interactions with children that demonstrate impact; robust curriculum content with attention to learning sequences, engagement, and self-regulation; knowledge of specific predictors relevant to later achievement; and a well-developed repertoire of teaching strategies (NAEYC, 2009). Prioritizing classroom practices and teacher effectiveness in early childhood programs further aligned the philosophies of the NAEYC and researchers who were concerned with appropriately identifying high-quality preschools.

The unanswered question for many researchers, including me, becomes, "How are these process features, including systematicity, woven into the fabric of new and existing prekindergarten programs?" Due to the increased funding made available in 2006 and the rapid expansion of prekindergarten programs across New York, the task of oversight by the state department to monitor quality and effectiveness in a timely manner has

become impractical. The national statistics on early childhood education showed that the number of children attending publically funded preschool programs across the country had almost doubled from 14.8% in 2001 to 28% in 2011 (NIEER, 2011). However, the overall “quality” of most programs remained unmeasured and the availability of supporting data to demonstrate otherwise has been limited, rendering overall program quality across the state and country almost impossible to gauge (NIEER/Yearbooks, 2001 & 2011). Providentially, the NIEER had disseminated ten standards that were considered central to determining quality of program design and infrastructure. NIEER published an annual yearbook that provided a comparative analysis of publically funded preschool status by state. This yearbook rated each state program according to the presence or absence of the ten recommended quality standards. The rating checklist, based primarily on structural features, stipulated ten indispensable components that provide the framework for designing a quality program. However, since these standards addressed only the structural features of quality, the “look fors” of process quality standards, which are equally important and perhaps a more significant facet of quality, became the responsibility of individual agency programs as monitored by the state of location. The NIEER checklist also served as a ranking system according to the number of benchmarks each state achieved; there were no mandates for adherence and there were no sanctions for programs that were unable to meet the criteria since this system has been primarily used for publication updates of the states’ status. Table 1 provides a list of the ten NIEER standards for program design or structural quality, along with the requisite criteria for each standard and compares each to the structural quality requirement criteria adopted by New York State and the district of study.

Table 1

Comparison of Quality Standards Criteria According to National Institute for Early Education Research (NIEER), New York State (NYS), and the District of Study

Structural Quality Standards	NIEER	NYS	District
Early learning standards	Comprehensive	NYS Pre-K Foundation for the Common Core	NYS Pre-K Foundation for the Common Core
Teacher degree	Bachelors	Valid teaching certificate Masters within 5 years to obtain professional	Valid teaching certificate, Masters to obtain professional
Teacher specialized training	Pre-K specialty	Birth-Grade 2 or Early Grades Certification	Same as state
Assistant teacher degree	Child Development Associate	State Teacher Assistant criteria	Agency or state criteria
Teacher in-service	At least 15 hours/year	Based on needs of students (175 hours if new teacher)	30+ hours/year in addition to state requirements
Max. class size- 4 yr. olds	20 or Fewer	20 Maximum	18
Staff-child ratio- 4 yr. olds	1:10 or better	Same	Same
Screening/referral and support services	Vision, hearing, health; at least one support service	Vision, hearing, health; supports as needed	Health, vision, hearing, EZ Screen & Social/Emotional
Meals	At least 1/day	Dependent on ½ or full day	Full day- 2/day
Monitoring	Site visits	Submission of assurance to the state QualitystarsNY Voluntary	QualitystarsNY participant. Pre & Post standardized assessments. Progress monitoring of discrete skills

NIEER (2011) Comprehensive Preschool Report by State & NYSED UPK Regulations and District UPK Guidelines.

Although the criteria for New York State appears to be consistent with the NIEER criteria, according to the 2011 NIEER report, New York State had not achieved the standard for the on-site monitoring benchmark. This was due to the absence of a statewide on-site monitoring system. Since then, the discrepancy has been somewhat ameliorated with the development of QualitystarsNY; a system that was made available to all New York preschool programs in 2013 (New York State Early Childhood Advisory Council [NYSECAC], 2013). As of 2014, the state had not yet met the NIEER monitoring system criteria due to the lack of resources needed to provide on-site monitoring to all districts with prekindergarten programs. The district of study took advantage of a QualitystarsNY (NYSECAC, 2013) pilot project in 2011 and has continued implementation in the subsequent years. Results of the pilot participation, which included an on-site visit, indicated that the district prekindergarten program not only met, but also exceeded the criteria set forth by the state UPK regulations and NIEER for each of the 10 infrastructure quality standards. Based on this comparison rating, the district of study not only defined but also achieved the regulatory and policy factors of the prekindergarten program criteria, it was reasonable to conclude it also successfully addressed the structural features of program quality. Verification of these infrastructure standards suggested the presence of a quality-designed program across all four district prekindergarten classrooms. Moreover, according to the QualityStarsNY (NYSECAC, 2013) rating in 2011, the district of study had not only complied with all the structural features, it had exceeded both the NIEER and the New York State criteria in the areas of professional development and program monitoring. This well thought out configuration by administrators and staff represented a hallmark contribution to the structural design

aspect of program quality. The more significant aspect of program quality, also known as process quality (e.g., classroom environment and teacher-child interactions), was addressed through classroom observation; although, not to the extent that would be expected if the primary focus of the program was process quality. This aspect of quality is further highlighted in the literature review section of this paper. In addition, the process quality features of the district prekindergarten program are examined during the qualitative component of this study to establish the UPK standard of quality through multiple observations and through comparison to the behaviorally- anchored rating scale from the Early Language and Literacy Classroom Observation Tool Pre-K [ELLCO Pre-K] (Smith, Brady & Anastasopoulos, 2008).

Chapter II

Review of the Literature

Since the passage of No Child Left Behind (NCLB) in 2001, the goal of education in the United States has been to close the achievement gap with a renewed emphasis on literacy to ensure that all children have the opportunity to succeed regardless of their income, background, race, or ability. With this legislation came the addition of increased accountability and the demand to minimize the risk factors considered to be obstructions to student success in school (U.S. Department of Education, 2004). In the past, the most commonly identified risk factors for a child included a disadvantaged economic background, ethnicity, and/or speaking a language other than English. More recently, research conducted by Reardon (2011) reinforced these risk factors and revealed that the achievement gap between children of affluent and low-income families was double that of the testing gap between Blacks and Whites, placing the children of low-income families at the greatest risk. The study further suggested that a child who entered Kindergarten already at risk was often unprepared for the high standards and rigorous expectations that come with the validation of accountability. This lack of preparation, which could have been the result of any combination of risk factors, contributed to the child's limited language development opportunities and/or lack of literacy related activities, ultimately lead to poor school readiness (U.S. Department of Education, 2006). Historically, there has been agreement that in order to overcome the factors preventing school success the government must provide additional educational opportunities for preschool-age children (Kagan & Reid, 2008). In recent years, this goal has become an even higher priority as evidenced by the expansion of state-funded preschool programs

and the appeal by President Obama in his 2013 State of the Union address for additional funding to educate children of preschool age.

Preschool Program Study Outcomes

Investing in the education of young children is not new and has been the focus of several landmark longitudinal studies from the 1960's, 70's and 80's, namely the High/Scope Perry Preschool Project, the Abecedarian Early Childhood Intervention, and The Chicago Child-Parent Centers. In addition, several studies have been conducted to determine overall effectiveness of Head Start and state-funded preschool programs. According to the principal researchers, these programs have produced positive benefits that have contributed to student success and have embraced many of the characteristic structures that represent both structural and process quality.

High/Scope Perry Preschool Project. This study took place in the Ypsilanti, Michigan school district between 1962 and 1967. An identified sample of 123 low-income, African-American, 3-year-old children was randomly assigned; 58 received a high-quality preschool program for two years while the other 65 received no program. Elements of the intervention included a 2½-hour preschool program with a ratio of five to six children per teacher, along with a structured curriculum, on-going professional development, and weekly home visits from the teachers. Follow-up studies on program effects at various yearly intervals continued to demonstrate significantly higher results for the experimental group on different tests of intelligence, language and academic achievement during the school years and a 77% graduation rate versus the 66% completion rate of the control group. A follow-up report conducted by Schweinhart, Monite, Xiang, Barnett, Belfield, & Nores (2005) found that participants' success at age

40 regarding housing stability, gainful employment, lack of arrests, and use of social services were also attributed to the program. However, the program, while yielding highly successful outcomes, came with an estimated cost of approximately \$15,895 per child per year (Galinsky, 2006; Schweinhart, Monite, Xiang, Barnett, Belfield, & Nores, 2005).

Abecedarian Early Childhood Intervention Project. The Carolina Abecedarian project took place in North Carolina in 1972. This project was a carefully controlled study involving four cohorts of individuals born between 1972 and 1977. The 111 infants, primarily of African-American descent and from low-income families were randomly assigned to the early intervention group or to the control group. Fifty-seven children were enrolled in the experimental early education program while the control group received no services. Programming for the intervention group was continuous through age five with activities focused on social, emotional, and cognitive development, giving particular emphasis to language. The preschool program was followed by a school-age intervention program through age eight and was comprised of a family-support model to increase parent involvement by providing materials and activities for home use. Key components of the overall program consisted of low adult-child ratios, well-paid teaching staff, ongoing professional development, and an individualized prescription of activities for each child (Schweinhart, 2005). According to a 2012 University of North Carolina news report, the benefits of this program continue to persist 30 years later. The follow-up study conducted at age 30 with 101 of the original participants, found that both males and females who received the intervention were more likely to attend college and graduate. Other benefits included consistent gainful

employment resulting in less reliance on public assistance. The estimated cost of replicating this program was calculated to be approximately \$11,000 per year, per child (Galinsky, 2006; NAEYC, 2006-2012; The University of North Carolina at Chapel Hill, 2012).

The Chicago Child-Parent Centers. The Chicago Child-Parent Centers (CPC) opened in 1967 and served approximately 1,286 youth; 986 of those children from 20 of the CPC preschool and Kindergarten sites participated in a quasi-experimental design program. A comparison group of 550 children from similar family backgrounds attended all day kindergarten with less than one-fourth attending preschool. The overarching goal of the CPC program was to promote the development of literacy skills among low-income, minority children (93% African-American) while emphasizing parental involvement. Interventions included a preschool program with family support services followed by full day kindergarten and a school-age extension into the early elementary grades. Positive outcomes were derived by requiring high levels of parent participation, keeping class sizes low, funding instructional supplies, addressing children's nutritional and health needs, and providing ongoing professional development for its well-paid teachers. All aspects of the program yielded positive cost benefits to society as measured by lower rates of dropouts, juvenile arrests, and violent crimes, as well as a higher rate of high school completion. The most significant results were attained by the group that spent 4-6 years in the program, with the greatest benefit derived from preschool participation more so than school age. The estimated cost of the preschool program, exclusive of the other components, was \$7,428 per participant (Galinsky, 2006; Reynolds, Temple, Robertson, & Mann, 2001).

While all of these model landmark programs demonstrated pronounced effects on participant outcomes over time, they differ greatly from current state-funded preschool programs in a number of ways. All of the previously mentioned intervention programs had the distinction and advantage of:

- introducing the program at age three or in one case infancy,
- permitting smaller class sizes,
- maintaining low child/adult ratios from 3:1 to 8.5:1; and
- hiring well-educated, well-compensated teachers.

Most notably, the projects included home visits as part of participation, with two of the three programs continuing family support into the early elementary grades (Galinsky, 2006). In all cases, according to study analyses, there was a significant cost-benefit corollary, yet the overall cost and total financial outlay of these programs ranged from \$16,000 to \$41,000 per child. Without question, such costs are prohibitive for state governments to assume in order to provide early intervention for all residents (Fitzpatrick, 2008).

Project Head Start. Head Start is a federally-funded program serving three- and four-year-old children with and without disabilities from low-income families either through weekly visits from home-teachers or in classroom settings that are partial or full day. Enrollment count for this program in 2013, including Early Head Start, was 965,000 children who are supported by a \$7.6 billion allocation from the government (U.S. Department of Health and Human Resources [USDHHS], 2013). During the 2007 reauthorization of the project, new provisions were added to strengthen the quality of the programs through alignment of Head Start school readiness goals with those of state early

learning standards, increased program monitoring, and the encouragement of higher workforce qualifications (USDOH, 2013). The most recent effort to determine the effectiveness of this widespread preschool program was a longitudinal Head Start Impact Study in 2010 conducted by the U.S. Department of Health and Human Services (USHHS). The study involved a nationally representative sample of 5,000 newly entering three and four year olds randomly assigned to two cohorts; a Head Start group with access to services or a control group without access to Head Start, but who could be enrolled in other programs. Both groups were followed through first grade to determine the positive impact of access to Head Start services (USHHS, 2010). The findings, which purportedly were to have considerable bearing on the future of Head Start, produced mixed results. The Executive Summary of the Final Report claimed statistically significant differences between the Head Start group and the control group on several measures of children's preschool skill experiences; the strongest outcome was in the area of social-emotional development. Independent reviewers (Burke & Muhlhausen, 2013) disputed these results and questioned the interpretation of the data. They contended that the Impact Study demonstrated little to no effect on student performance and in some cases the measures produced harmful effects (Burke & Muhlhausen, 2013). Although not specifically identified, their criticism of the outcome claims may be attributed to the alpha or p value used to determine a reliable difference. The generally accepted p value asserted to imply effectiveness of an intervention is $p < .01$ or $.05$, whereas the Impact Study Report relied on a value of $p < .10$ to suggest a difference between the Head Start intervention group and the control group. Despite the sample size being large, there is reason to believe that the findings could have been inflated due to the higher p value,

which leads to a greater probability of a type 1 error. In other words, the higher p value opens the research door to question whether the difference in study results was due to the intervention treatment or due to chance.

To its credit, the Head Start study was considered scientifically rigorous, yet, the large sample size and the number of agencies involved made the critical variables difficult to control, which lead to excessive inconsistencies in the following factors:

1. Certification included teachers with Bachelor degrees, Associate degrees, or no post-secondary education.
2. Control group study conditions changed depending on setting; in some cases the control group received more services than did the treatment group, while others received no services.
3. Classroom quality ratings on the ECERS-R (Harms et al., 2005) ranged from no program evaluation conducted during the study to a program score of five or higher out of total of seven.

These distinct differences demonstrate the complexity of controlling variability within a large study, thus the claim of program effectiveness with certainty becomes obscured and questionable.

State-funded Preschool Programs. As of 2009, three states, Georgia, Oklahoma, and Florida, offered all four-year-old children the option of attending preschool at no cost to their families; at the same time Illinois and West Virginia were in the process of expanding availability (Ackerman, Barnett, Hawkinson, Brown, & McGonigle, 2009; Burke, 2009). Each of these state programs demonstrated compartmental effectiveness and share cautionary results. Fitzpatrick (2008) analyzed

the effects of Georgia's universal prekindergarten on fourth grade achievement across several years. The author concluded that the UPK program did have positive state-wide effects on the students' outcomes; however, they were not statistically significant across the board for academic achievement. Further, the occurrence of potentially different effects of the UPK program on dissimilar sub-groups of children was cited to highlight the differential opportunities provided across rural and urban settings. Gormley (2005) and colleagues conducted research on Oklahoma's program in order to estimate the overall effects of exposure to prekindergarten for four-year-old children living in Tulsa who varied in race, ethnicity, and income. The study used a regression discontinuity design based on the age cut-off for preschool and Kindergarten eligible students in order to construct a comparison group that closely resembled the treatment group. The researchers were successful in testing 85% of Kindergarteners (treatment group), which represented 84.5% of all prekindergarten attendees from the previous year. Three sub-tests of the Woodcock-Johnson Achievement Test were administered to both groups to determine overall effects of attending preschool prior to Kindergarten entry. The results found that the gains in each test score were attributable to the prekindergarten program; furthermore, Hispanic, Caucasian, African-American and Native American children from diverse income brackets all benefitted from program attendance. Specifics of the study, such as varied curricula, lack of classroom observation, and selection bias of participants may have been limiting factors in the overall results. However, the general conclusions demonstrated the effectiveness of the prekindergarten programs and implied potential in providing a promising path to kindergarten.

One of the more comprehensive studies conducted by the National Institute for Early Education Research at Rutgers University (Barnett, Lamy & Jung, 2005) on the effects of state-funded prekindergarten programs involved data collected from the following states: Michigan, New Jersey, Oklahoma, South Carolina, and West Virginia. This study identified a random sample of 1937 classrooms (half preschool and half kindergarten) from those five states, which resulted in a sample population of 5278 children from diverse backgrounds. All of the children were individually assessed in receptive vocabulary, phonological skills, print skills, and early math skills using the Peabody Picture Vocabulary Test - 3rd Edition (PPVT), the Blending & Print Awareness subtests of the Preschool Comprehensive Test of Phonological & Print Processing (Pre-CTOPP) and the Woodcock Johnson Achievement Test - 3rd Edition (WJ) Subtest 10-Applied Problems respectively (Barnett, Lamy & Jung, 2005). An additional measure of free and reduced lunch was included; however, information on 17% of the sample was unavailable, thus, results were varied. Analysis of the data was conducted using a regression-discontinuity design with strict cut-off dates for program enrollment. The main results of the estimated effects of the state-funded programs were found on four of the five outcome measures for the sample as a whole and for each state. Specifically, the study found a 31% growth in vocabulary and an 8% increase in average scores across all state programs; and a 44% growth in math skills with a 13% increase in average scores found across four states (one state did not participate in this measure). Print awareness skills varied by state; however, there was an average yearly combined growth effect amounting to 85%, which accounted for a 39% increase in scores overall. There was no significant effect found on phonological skills either overall or for any individual state.

This study, which represented a broad cross-study of state prekindergarten programs, estimated meaningful effects on children's language, literacy, and math skills thereby providing evidence that preschool programs can produce broad gains in children's learning.

Another multi-state prospective evaluation project was undertaken by several researchers interested in examining the gains in academic and social skill achievement of state-funded prekindergarten programs. This study's focus was to determine if the expected gains in achievement could be attributed to variations in the structural and classroom process dimensions of program quality (Curby, LoCasale-Crouch, Konold, Pianta, Howes, Burchinal, Bryant, Clifford, Early, & Barbarin, 2009; Howes, Burchinal, Pianta, Bryant, Early, Clifford & Barbarin, 2008). The analysis data used in the project were obtained from two studies: the National Center for Early Development and Learning (NCEDL) Multi-State Study of Kindergarten and the State-Wide Early Education Programs Study (SWEEP). The NCEDL Multi-State Study collected data during the 2001-2002 school years from six different states, one of which was New York. The SWEEP study was designed as a supplement to the original NCEDL study and collected data from five additional states in 2003 and 2004; both studies had the same research team and employed the same measures to determine results (Early, Barbarin, Bryant, Burchinal, Chang, Clifford, . . . Barnett, 2005). The outcomes, related to increased achievement and social-behavior of the children, were mixed with small but significant gains posted on the standardized measures of language, literacy, and math. The authors speculated that despite learner variability, results might have been different were it not for the limited program time (in some case only 2 hours), the low quality of instruction

observed in classrooms, and the lack of individualized instruction. With that in mind, the added significance of this broad study was the attention given to the program dimensions associated with the subsequent gains. The researchers found that the quality of the classroom experiences (classroom instructional climate, teacher-child relationships, and amount of exposure to certain areas of instruction), in other words, the process features, predicted the most growth in the language, literacy, and social domains. These findings contradict any assertions that structural standards alone are sufficient for the development of quality prekindergarten programs. In a follow-up article to the study, Howes, Burchinal, Pianta, Bryant, Early, Clifford & Barbarin (2008) stated, “Reaching the goal of reducing the achievement gap for children when they enter kindergarten will require focusing on supporting classroom experiences that contribute to developing skills, not simply specifying the structural inputs to programs” (p.47).

To further validate this school of thought, a contemporary large-scale study of 2,000 students enrolled in the Boston Public Schools public prekindergarten program conducted by Weiland & Yoshikawa (2013) examined the impact of a prekindergarten program using established curricula for literacy, language, and mathematics along with a coaching system. This study is ground breaking in its crosswalk of the existing literature on prekindergarten effectiveness indicators and additional treatment interventions (curricula and coaching). Both the curricular expectation and the coaching intervention were district-based, rendering the study condition more representative of a typical district prekindergarten program encounter rather than a research demonstration site. As a result, Weiland & Yoshikawa (2013) found moderate to large effects, as measured by Cohen’s *d*, on the prekindergarten language, literacy, and mathematics outcomes with 0.45 for

receptive vocabulary, 0.62 for early reading, 0.58 for numeracy, and 0.49 for numeracy and geometry. In addition, there were positive impacts on most measures of executive functioning due to the process features present in the prekindergarten program. Using this combination of process feature indicators, the researchers further confirmed the linkage between program quality and student achievement. Although the study was not able to differentiate causal results between the coaching and curricula inputs, the outcomes remain policy-relevant and confirm that the combination of evidence-based curricula with trained Bachelor's and Master's level teachers, along with coaching, produce positive effects on school readiness domains (Weiland & Yoshikawa, 2013).

Until the start of the last decade, the outcomes and recommendations of these research studies had not attracted the attention of those politicians and policymakers with the ability to make UPK for three and four year olds a reality. In fact, they have only become a central focus of most state and local agencies within the last five years. The interest being given to the educational and cost benefits of state-funded preschools in the 21st century is reaching epic proportions and will likely generate renewed awareness of the research that serves to define both best practices for developing students' skills and preschool process quality (Bartik, 2011; Finn, 2009; Guo, 2011; Mashburn et al., 2008; NIEER, 2013).

Language and Literacy in Preschool

Seminal research of formal literacy instruction of primary age children points to the need for additional emphasis on the development of early literacy skills in preschool settings (Dickinson & McCabe, 2001; Dickinson, McCabe, Anastasopoulos, Peisner-Feinberg, & Poe, 2003; Dickinson & Tabors, 2002). Furthermore, the research has been

justly documented regarding the specific pre-literacy instruction that has positively affected student achievement (Hayes et al, 2001-2002; Lonigan & Shanahan, 2010; Wasik, Bond & Hindman, 2006). It is well known that oral discourse and language practices have long been a focus of researchers, especially as they relate to literacy development in the elementary school years (Aldridge, 2005; Dickinson & McCabe, 2001; Dickinson et al., 2003; Griffin, Hemphill, Camp, & Wolf, 2004; Lonigan, Burgess, & Anthony, 2000; Snow, 1983; Snow, 1999; Strickland & Shanahan, 2004).

Furthermore, the last decade has experienced resurgence of these topics due in part to the National Reading Panel (2000) and the National Early Literacy Panel [NELP], (2008) findings, and to a certain extent the expansion of public prekindergarten programs. The early literacy panel was commissioned to examine research that identified specific, teachable skills correlated to reading, writing, and spelling at the preschool and kindergarten levels. Upon publication, the report was both summarized and criticized by researchers and literacy experts alike. One of the more prominent summaries taken directly from the original panel report (Westgate, 2002-2006) was authored by Strickland & Shanahan (2004). Their summary provided a detailed explanation on NELP's investigative findings, which revolved around four central questions related to young children and later reading outcomes. Specifically, the panel reviewed and synthesized studies that reported on empirical research in order to respond to the following questions. What skills do young children require to become successful readers and writers? What settings and environments contribute to the development or impede the acquisition of the skills? How do characteristics of young children contribute or impede the development of the skills? How do programs and interventions contribute or impede the development

of the skills? To be considered a viable contributor to the development of reading, a skill or variable required at least three independent studies related to decoding or comprehension with an average correlation of at least .30. Skills that met the correlation criteria would then serve as a framework for emergent literacy instruction in early education programs. The panel identified 11 variables that serve as predictors of reading decoding and comprehension and also qualify as important precursors for later literacy success. Listed in Table 2 are the skills with the highest correlation to later decoding and comprehension ability in elementary school.

Table 2

Teachable Skills in Prekindergarten and Kindergarten that Correlate to Reading Decoding and Comprehension

Early literacy skill	Mean correlation to decoding	Mean correlation to comprehension
Alphabetic knowledge	.46	.45
Print knowledge	.46	.30
Environmental print	.52	----
Invented spelling	.56	.69
Oral language	.30	.26
Listening comprehension	.27	.32
Phonemic awareness	.45	.42
Phonological memory	.26	.38
Rapid naming	.39	.39
Visual memory	.47	.15
Visual perceptual skills	.36	.35

Strickland & Shanahan, 2004

Although the relationship between oral language and decoding and oral language and comprehension was not as high as other variables, it remains a significant factor in later literacy achievement as evidenced by many of the key studies reviewed later in this section. In fact, proponents of oral language argue that the report failed to adequately depict the role of oral language for reasons related to focusing on the size of direct effects only, narrowing the developmental time frame to kindergarten as the ceiling, and

emphasizing code-based factors, which are more rapidly developing than linguistic factors (Dickinson, Golinkoff, & Hirsh-Pasek, 2010).

As mentioned earlier, a number of research studies support the prominent position that language plays in the foundation of literacy, several of which are reviewed by Dickinson et al., (2003) in the article *The Comprehensive Language Approach to Early Literacy: The Interrelationships Among Vocabulary, Phonological Sensitivity, and Print Knowledge Among Preschool Children*. The authors referenced a study conducted by Chaney (1998), which found that oral language skills in the form of receptive vocabulary were strongly correlated with literacy at the early age of three. Similarly, in a large-scale longitudinal study that followed children from kindergarten through second grade, Catts (2000) concluded that over 70% of poor readers in second grade had a history of language deficits in both phonological processing and oral language in kindergarten. A third study highlighted was a longitudinal project by (Storch & Whitehurst, 2002) that followed a group of children from Head Start through fourth grade and found that reading development was the result of two distinct interacting factors: oral language skills and code-related skills. Therefore, if one considers pre-literacy to be based on the interrelationships among code-related and oral language skills, then particular attention to how children acquire these skills is critical in order to lay the foundation for later literacy development. For that reason, a discussion on the connection between language and literacy warrants further attention.

Most children acquire language skills through peer and adult interactions at home, in the community, and if the opportunity avails itself, in preschool. Depending on the environment, the level of income, and the value placed on literacy in the home, the

language development of children varies accordingly (Hart & Risley, 2003; Snow, 1998). The concern for children who enter preschool having limited exposure to language opportunities justifies the need for increased emphasis on language instruction in the classroom. While placing emphasis on language and literacy opportunities makes good instructional sense, the literature substantiates the limited language opportunities offered in many preschool programs, especially those serving low-income children (Cunningham, 2010; Dickinson & Tabors, 2001; McGill-Franzen, Lanford & Adams, 2002).

Providing preschool educators with an appropriate curriculum, in-depth staff development, and research-based intervention strategies/activities that support language and literacy instruction has been found to be critical to the successful development of emergent literacy and is necessary to the acquisition of early reading skills in kindergarten (Dickinson et al., 2010; Green & Peterson, 2006). Despite the fact that many children enter with the necessary prerequisite skills for learning to read, approximately 30% find the process of reading a significant challenge (Coley, 2002; Lyon, 1997). This disparity has often been attributed to the variation in children's readiness skills due to home environment, economic disadvantage, and/or preschool setting experience (Coley, 2002; Rhode Island KIDS COUNT, 2005; Sadowski, 2006). Additionally, while some children come from language-rich literacy environments, others have had little to no familiarity with practices such as reading aloud with an adult, engaging in extended conversations on a topic, and exploring print; all of which were found to be important precursors to reading development (Cunningham & Stanovitch, 1998; Hart & Risley, 2003).

The preceding studies implied that children who fell in the school readiness gap category benefitted most from attending a quality prekindergarten program that offered a language enriched environment (Clifford, Bryant & Early, 2005; NASP, 2004; Pianta et al., 2005). Furthermore, an effective language-based preschool program can serve as the base for later literacy expansion (Dickinson & Tabors, 2001). Until recently, few options were available for the many four year olds who could benefit from attending a program that emphasized key foundational elements of early literacy. Moreover, the most viable option, Head Start, has been restricted for some by a policy that limits enrollment to students within a specific income level and for others due to limited number of available classrooms. As more districts across the country offer prekindergarten universally, the accessibility to public programs expands exponentially. Once program availability is addressed and moderated, then requisite attention can be paid to the substance of the curriculum and the quality of instruction at the preschool level for all children, an essential step if we are to close the readiness gap for entering kindergarten students.

Effect of Teacher Instruction and the Environment on Language Development

In general, early childhood programs are required to address a broad range of skills especially if the population they serve is diverse in language, income, ethnicity, and ability. Some of the more promising practices highlighted in research include: shared book reading, adult-child interactions, and code-focused interventions. Effective implementation of these activities in the preschool classroom is not only beneficial to teaching emerging literacy; it also plays an important role in the development of oral language leading to later reading success (Goldstein, 2011; Guo, Kaderavek, Piasta,

Justice, & McGinty, 2011; Justice, Masburn, Hamre, & Pianta, 2008; National Early Literacy Panel, 2008)

Environment and instruction are particularly relevant when addressing process quality of a preschool program and the characteristics of a high-quality, developmentally appropriate, language-rich classroom. The research has been clear that a literacy-rich preschool environment contains the following critical components:

- An environment that is print-rich, giving children access to an array of print such as schedules, word walls, activity centers, demonstrations, content themes and of course, a wide selection of books and other reading materials.
- Instructional opportunities that allow ample discourse and extended conversation use initiated by both adults and students.
- A responsive teacher to provide direct and indirect instruction for modeling and teaching new information, who can elicit a variety of student responses and, perhaps more importantly, create an atmosphere that encourages oral language usage within the social contexts of circle time, activity centers, book reading, mealtime, and free-play (Cunningham, 2010; Justice et al., 2008; Mashburn et al., 2008; NASP, 2004).

Specifically, the research referred to classroom practitioners who used “rich talk” to promote interactive book reading as a context for exploring conceptual ideas, thereby enriching vocabulary development. They also provided for the exchange of ideas and made connections across integrated curriculum, while simultaneously enhancing and refining the language influences learned at home to lay the groundwork for literacy development (Dennis & Horn, 2011; Roskos, Christie & Richgels, 2003; Sylvester &

Kragler, 2012). These teacher-directed instructional activities and techniques have been solidly supported by The International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC), and can be further studied by reading the jointly issued position statement, *Learning to Read and Write: Developmentally Appropriate Practices for Young Children* (1998).

The prominent role of teacher instructional practices was further examined in a study conducted by Cunningham (2010) to determine how preschool quality related to literacy development. This study involved 24 preschool classrooms representing a total of 428 children. The sample population was considered diversified with 74% being African-American and 80% of the participants qualified for free and reduced meals. The Early Language and Literacy Classroom Observation tool (ELLCO) was used to assess the quality of the classroom literacy environment through observation, and the Teacher Rating of Oral Language and Literacy (TROLL) assessed the children's essential literacy skills of language, reading, and writing. A Pearson r was calculated using the two measures to determine the relationship between the quality of the preschool environment and the children's literacy development. A correlation of $r (.428) = + .35$, $p < .000$ was found, suggesting a moderate significant relationship; in other words, as the literacy environment quality increased, the TROLL scores tended to increase, suggesting that an improvement in the literacy environment could have a positive impact on literacy development (Cunningham, 2010).

Mashburn and colleagues (2008) examined the development of academics, language, and social skills among four year olds who attended 671 publicly funded prekindergarten programs located in 11 states. Three methods were used to measure

overall program quality: the adherence to nine standards related to program infrastructure or structural features, a classroom environment observation, and an observation of teachers' emotional and instructional interactions with children. Study findings showed consistent evidence to confirm that the quality of the classroom interactions is directly associated with children's acquisition of skills. At the same time, the authors revealed several study limitations. First, the NIEER standards pertaining to professional development and on-site program monitoring were not included, both of which are important considerations. In addition, generalizability to other prekindergarten programs would be difficult, especially if those programs were not well developed and designed. The student population in the study was based on parental consent; therefore, the demographics may not be representative of other publicly funded programs. Most notably, the relatively small magnitude effects of process quality as measured by children's skill development is suspect in that many of the classrooms in the study were characterized by low levels of instructional quality, meaning that differences in instructional quality would have greater effect on the academic, language, and social skill outcomes.

In a study conducted by Dickinson & Porche (2011), attention was given to the quantity and content of preschool children's classroom interactions with their teachers based on classroom observations. The authors hypothesized that interactions in preschool would predict not only language in kindergarten, but that the kindergarten language ability would predict grade four language and reading comprehension. They further speculated that the following specific types of interactions were "likely to be associated with enhanced language growth: teachers, who were *tuned in and responsive*,

had extended topics of the conversation, and used sophisticated vocabulary” (p 873).

This study used several measures including home interviews, student assessment of vocabulary in kindergarten and in grade four, and observations with a particular emphasis on the teacher-child conversations that occurred in the preschool classroom. The findings demonstrated substantial associations between the preschool variables that represented practices used to support language acquisition and later student language and reading outcomes. Specifically, teachers' utterances that extended talk with children were positively related to all student outcomes (kindergarten range $r = .26$ to $.38$; grade four range $r = .29$ to $.34$). Study results also indicated that teachers' higher use of more complex vocabulary was related to higher levels of emergent literacy, $r = .28$, and receptive vocabulary at kindergarten $r = .22$, ($p < .06$) and at fourth grade, $r = .32$, and fourth-grade comprehension, $r = .34$, and word recognition, $r = .39$ (Dickinson & Porche, 2011). This particular study is consistent with previous research that relied on observations to obtain carefully detailed descriptions of preschool processes related to students' language development rather than using global ratings of classroom environment (Connor, Morrison & Slominski, 2006; Wasik, Bond & Hindman, 2006).

Another study by Sylvester & Kragler (2012) focused attention on the instructional practices at the prekindergarten level from a different perspective. Rather than examining the positive effects on student achievement, this study demonstrated the limited gains in language development due to the restrictive nature of a district mandated curriculum and lack of consideration for literacy research. The teachers in the program studied were expected to follow a curriculum focused primarily on orthographic knowledge, such as letter names, sounds, and phonemic awareness. Most of the student-

teacher interactions were simply stated and teacher directed, allowing little opportunity for extended conversations or open-ended questions. Because the curriculum was narrowly focused on one aspect of literacy, the development of oral language to support the phonological processes was restricted. The emphasis on one skill set at the expense of other literacy skills was evidenced by the students' results on the standardized measures.

All of the study results presented in this literature review are characteristic of process features that have a significant impact on the overall achievement of young children. Although outcomes varied depending on sample size and conditions under which the studies were conducted, essential underpinnings were evident across research findings. All investigations suggested that quality early childhood experiences could lead to improved language and literacy outcomes. Most supported the understanding that well-designed and highly developed instructional practices can be replicated in prekindergarten classrooms to promote language and literacy achievement. Consistently highlighted practices include teacher-child interactions, vocabulary and concept development, extended conversations, and phonological awareness. Additionally, some of the findings underscored salient aspects of process quality including environmental factors, instructional practices, and teacher-student interaction opportunities that have produced positive results in an effort to close the readiness gap that exists among school-aged children. Taken as a whole, the research asserts that preschool programs, especially those that score highest on observed classroom quality indicators, have had the most positive effect on the language and literacy skills of young children and serve as the foundation for both prevention efforts and later literacy achievement.

Chapter III

Methodology

This study was a convergent design mixed method approach that gathered a combination of quantitative and qualitative data to triangulate resulting information for confirmation of the questions posed. The quantitative component of the study first compared the pre- and post-test scores of UPK students over consecutive years on the Boehm Test of Language Concepts 3rd Edition Preschool [Boehm-3 Preschool] (Boehm, 2001b) and second, compared the differences between pre-test scores of entering kindergarteners on the Boehm Test of Language Concepts 3rd Edition [Boehm-3] (Boehm, 2001a). The primary focus of this component was on language concept growth while controlling for gender, free and reduced lunch eligibility, and race/ethnicity. To obtain this information, three consecutive years of data were collected and quantified to determine the effect of the UPK program on student language concept growth and also to identify language concept differences between students enrolled in the UPK program and those who entered kindergarten with other preschool experiences.

A qualitative dimension was incorporated into the study to determine whether classroom evidence of teacher language and literacy practices supported the findings of the quantitative results. The observation data served to enhance the interpretation of the larger research design by identifying UPK program practices that were associated with language concept development.

My study hypothesis contended that a rich language environment in the UPK classrooms, produced by effective teaching practices, would increase student's language concept acquisition by the end of the program experience. Further, I proposed that

students who attended the district UPK program would maintain those language skills upon entry to kindergarten, more so than students who did not attend the UPK program.

This chapter further clarifies the three research questions through a discussion of the study design, population, and instrumentation, with reliance on an embedded design construct combining quantitative and qualitative methods for data collection and analysis.

The research was guided by the following questions:

1. To what extent did students show growth between pre-and post-test scores on the preschool test of language concepts as a result of attending the district UPK program?
2. How did the pre-test scores on the primary version of the language concepts test compare between kindergarten students who participated in the district UPK program and those who did not?
3. What research-based instructional practices used in the UPK classrooms contributed to the development of oral language and how did those practices support students' acquisition of basic language concepts prior to kindergarten?

Study Population

Study participants consisted of a convenience sample of students who attended the district's established prekindergarten program and kindergarten students who attended one of three elementary schools within the same district. Archived, longitudinal data from 2009 - 2012 were collected for both prekindergarten and kindergarten student cohorts. The student numbers in each cohort reflected the assessment scores at the time of data collection. Missing scores or those not archived after a student left the district were removed from the database. The information respective to the 207 prekindergarten

students was delineated by year and categorized by demographics shown in Table 3. The breakdown for the cohort representative of the 450 kindergarten students can be seen in Table 4. A review of how the demographics were reported to the school district is noteworthy. All data were obtained through the district's student management system, which originated from the student registration forms, completed by parents during the prekindergarten and kindergarten enrollment processes. Therefore, if parents reported their children as Caucasian, that is how it was entered.

A brief summary of the enrollment process for the district's UPK is necessary to understand the study sample. Student participation in the prekindergarten program was voluntary and based on prior registration. If the registration list in any year exceeded the pre-determined number of available openings, a lottery system was employed to randomly select the students who would attend the program. The UPK students were randomly assigned to three of the four teachers. In the fourth classroom all students had to meet an income eligibility requirement; therefore, the student enrollment in that room varied from year to year based on the number of families from that income eligible bracket who chose to sign their children up for the UPK program. This variation was also due in part to the agency collaboration mandate imposed by the state. Every district that applied for UPK funding was obliged to connect with other area agencies providing educational services to four year olds. As a result the UPK program was housed in the district of study and operated as a joint project with two community agencies: one, a community center program with no limitations on enrollment; and the other, a federally-funded program that served only children from families of income eligibility status. The involvement of the latter agency made it impossible to distribute the children evenly

across the four UPK classrooms. Hence, by virtue of the agency guidelines, one of the classrooms was homogeneously grouped by income level; however, it was otherwise inclusive of race, gender, disability, and ELL. The remaining classrooms were comprised of students from varying backgrounds and did not differentiate by income or other characteristics. Table 3 provides a descriptive breakdown by year of the UPK participants.

Table 3

Demographic Breakdown of UPK Participants

Year	2009-2010	2010-2011	2011-2012
Total Class #	67	68	73
Gender	26 Males 41 Females	40 Males 28 Females	44 Males 29 Females
Ethnicity	55 Caucasian 5 Hispanic 6 African Am. 1 Mixed race	61 Caucasian 1 Hispanic 6 African Am.	68 Caucasian 1 Hispanic 4 African Am.
Free & Reduced Lunch	29 Free 4 Reduced	27 Free 7 Reduced	30 Free 7 Reduced
Students with Disabilities	7	2	8
English Language Learners	68 English 1 Russian 2 Spanish	68 English	70 English 1 Bulgarian 2 Arabic

District Enrollment Records, 2009-2011

Kindergarten enrollment consisted of children who turned five by December 1st of each given year and varied depending on the number of residents located within the predetermined school boundaries. All of the district kindergarten classrooms regardless of school location were heterogeneous by design; however, the neighborhood of location may have dictated differences in race/ethnicity and free and reduced lunch population. Table 4 depicts the demographic breakdown of the kindergarten cohort and the type of preschool experience, if any, prior to entering kindergarten.

Table 4

Demographic of Kindergarten Participants

Year	2010-2011	2011-2012	2012-2013
Total Class #	149	141	160
Gender	69 Males 80 Females	78 Males 63 Females	89 Males 71 Females
Ethnicity	123 Caucasian 20 African Am. 6 Hispanic	128 Caucasian 10 African Am. 2 Hispanic 1 Bi-racial	136 Caucasian 21 African Am. 2 Hispanic 1 Bi-racial 1 Asian
Free & Reduced Lunch	90 Free 11 Reduced	73 Free 11 Reduced	90 Free 14 Reduced
Students with Disabilities	14	11	17
English Language Learners	141 English 3 Spanish 0 Pashto 1 Turkish 3 Russian 1 Ukrainian	135 English 2 Spanish 2 Pashto 1 Russian 1 Ukrainian	153 English 1 Spanish 3 Pashto 1 Rumanian 1 Bulgarian 1 Arabic
Preschool Experience	52 UPK 25 Head Start 18 Nursery & other 45 None 9 Sped Program	49 UPK 32 Head Start 27 Nursery & other 27 None 6 Sped Program	53 UPK 32 Head Start 18 Nursery & other 48 None 9 Sped Program

District Enrollment Records, 2012

All students who were continuously enrolled during the 2009-2102 school years are included in this sample. Students who transferred in after the school year had started, or those who transferred out at any time were excluded from the data due to the unavailability of their records and respective scores. The remaining 207 prekindergarten students and the 450 kindergarten students provided the basis of subsequent cohort grouping.

Participant Risk

There was no risk to participants in this research study as the student information was taken from an existing, archived database. A number code was used to eliminate risk of student recognition and all identifying information was kept strictly confidential by the researcher as the sole proprietor of the data for both collection and analysis. The risk to teachers and students during observation was minimal in that there was no encounter difference than what ordinarily occurred in daily life or during the performance of routine classroom visits. All collected data were coded only for evidence of practices used in the classroom and all teachers willingly participated in the observation process knowing that declination or discontinuation of participation could occur at any time. No incentives were offered to coerce study participation.

Study Setting

The study setting was the UPK program located within the district. The program consisted of four classrooms located in a newly constructed wing connected to one district elementary school. Each classroom was comprised of 16 to 18 students taught by a New York State certified master teacher and a teacher assistant. Prior to the construction of the early childhood wing, the UPK classrooms were housed separately in

whichever elementary building could accommodate extra classrooms based on the fluctuating yearly enrollment of school-age children. The relocation of all four classrooms to one building in 2010 contributed to a greater sense of staff belonging, led to improved cohesiveness in practice among the UPK teachers, and increased collaboration between the UPK and kindergarten teachers; all factors that proved beneficial to the success of the program. The overall supervision and coordination of the program's four classes were the primary responsibility of one district administrator; however, this administrator also worked in conjunction with the building principal and collaborating agency personnel. While the collective emphasis of the program coordinators was to promote developmentally appropriate practices as espoused by the National Association for the Education of Young Children (NAEYC, 2009), there were opinion differences between one agency coordinator and district staff about "best" practices and their implementation. In one particular classroom, these ongoing philosophical differences resulted in practice inconsistencies and teacher turn over four out of the five years. For this reason, any observations conducted for this study were limited to those classrooms not affected by these variables.

Although the study sample included new kindergarten entrants for each of three consecutive years, it must be noted that the classroom setting and the practices of the kindergarten teacher had no referent or bearing on this research as the teacher's only role was the administration and scoring of the pre-test at the start of the school year.

Instrumentation

Boehm Test of Basic Concepts-3 Preschool and the Boehm-3. This study utilized both the Boehm Test of Basic Concepts Preschool 3rd Edition (Boehm, 2001b),

known as the Boehm-3 Preschool, and the Boehm Test of Basic Concepts 3rd Edition (Boehm, 2001a), commonly referred to as the Boehm-3, to assess students' basic understanding of language concepts.

The Boehm-3 Preschool (Boehm, 2001b) is a standardized, individually administered assessment comprised of 52 items with different starting points based on the child's age. It has been validated for students between the ages of 3.0 to 5 years 11 months. All 52 items are administered to children four years and older, which applied to the students in the UPK program based on the age eligibility requirement for enrollment.

Kindergarten teachers used the Boehm-3, available in two forms for pre- and post-testing, "to determine if the student's comprehension of the concepts was consistent across multiple contexts" (Boehm, 2001a). While the Boehm-3 overlaps some of the concepts of the Boehm-3 Preschool, it also adds another level of difficulty appropriate for older students. Scoring for both editions was based on correct or incorrect responses with results reported as a raw score, a percentage, or a percentile. Although the scores can be reported in three different formats, for analysis in this study the percentile scores were utilized as this was the score type supplied to the researcher.

The basic concepts assessed by the Boehm-3 Preschool (Boehm, 2001b) and the Boehm-3 (Boehm, 2001a) are words used to describe qualities of objects (e.g., pretty, tall), spatial relationships (e.g., in, on, beside), time (e.g., before, first), quantity (e.g., more, few, some), rather than the objects themselves. Both tests evaluate a student's understanding of 50 basic relational concepts that are integral not only for school success, but as important precepts of cognition. In her book, *Reading Assessment, Linking Language, Literacy and Cognition*, Farrall (2012) expounded upon this view of basic

concept knowledge, “Without them, we understand and describe things and events in isolation and not as part of a world with cause and effect, organization and purpose” (p.161). Additionally, student mastery of the key concepts found on the Boehm-3 come from carefully structured vocabulary activities in the prekindergarten classroom along with teacher discourse and extended conversation that incorporate the basic concepts into literacy and math instruction. Students who are able to generalize these concepts across a variety of settings are known to perform at higher levels of thinking. In the scheme of learning, concept skill attainment like other cognitive proficiencies varies from student to student. This discrepancy is even more notable in particular groups of students, such as those with learning disabilities and/or language difficulties (Farrall, 2012). Studies conducted by Kavale (1982) and Spector (1979) confirmed the challenges faced by these students in their attempt to acquire basic concept skills.

Neither of the Boehm-3 assessments is considered a criterion-referenced test, nor should they be used in isolation to determine a child’s placement. However, according to the author and other research studies, the normative data obtained from the assessment results can be utilized to assess readiness for language and literacy learning and for research. In a predictive validity study of the original 1976 version of the Boehm Test of Basic Concepts (Estes, Harris, Moers, & Wodrich, 1976), there was a significant relationship ($p < .01$) found between knowledge of basic concepts and later school achievement in language, math, and reading. This was further supported in a validity study conducted by the British researcher Smith (1986). Yet another study examined the relationship between the Boehm and the Peabody Picture Vocabulary Test (PPVT) resulting in a correlation of .84 between the two measures, indicating that they evaluated

similar language abilities (Hutcherson, 1978). These studies are relevant in that the Boehm has not been used as extensively as the PPVT in research to determine language acquisition even though it is a viable option. The outcomes of these studies; however, served to substantiate the validity of the Boehm-3 for research purposes.

In the present study, there were several advantages to using the Boehm-3 (Boehm, 2001a & 2001b) assessment tools. Since teachers had been using the Boehm-3 as an integral part of the district UPK and kindergarten programs for several years, no additional test administration training was required. Additionally, because the tool had been used continuously since 2008 as a pre- and post-measure in both programs, there was internal consistency among those who administered the measure.

Early Language and Literacy Classroom Observation Tool. To explain the prekindergarten language and literacy environment, classroom observations of all activities and conversations were conducted within the classrooms during specific time periods. Four scales of the Early Language and Literacy Classroom Observation Tool Pre-K [ELLCO Pre-K] (Smith, et al., 2008) were used to link observation information to a level of implementation, therefore a description of the observation tool is provided. The ELLCO Pre-K is designed to identify practices and environmental supports that help cultivate children's early language and literacy development, and has been divided into five main sections:

- I. Classroom Structure
- II. Curriculum
- III. The Language Environment
- IV. Books and Book Reading

V. Print and Early Writing

The five main sections are combined into two main subscales: The General Classroom Environment subscale containing Sections I and II and The Language and Literacy subscale, which consists of the remaining sections (Smith et al., 2008). All the scales unite the central tenets of children's early literacy development. The scales used for this study were limited to Section III, The Language Environment, which represented the aspects of early literacy that strongly aligned to students' oral language opportunities within the classroom. The four chosen scale items were: Climate Discourse, Opportunities for Extended Conversations, Efforts to Build Vocabulary, and Phonological Awareness.

The ELLCO Pre-K has been analyzed in studies for reliability and was found to have good internal consistency across all components with a score of .86 on the Language and Literacy subscales and a composite score of .83 as measured by Chronbach's Test (Smith et al., 2008). The tool has been widely used in correlational research designed to determine the contributions of classroom quality to children's vocabulary and early literacy scores with positive results. Furthermore, data collected from the recent RENEW project using the ELLCO Pre-K as the measurement tool suggested that it "is both stable and sensitive to interventions that target literacy in ways that are consistent with its assumptions about what constitutes appropriate early literacy practices" (Smith et al., 2008, p. 61).

Procedures

After receiving permission from the district superintendent and the prekindergarten supervisor to conduct the study, I developed a simultaneous process of

collecting demographic data and student scores while making arrangements for scheduled classrooms observations to meet the criteria of a mixed method study. All demographic data for the study were coded by gender, ethnicity, ELL, free and reduced lunch, and special education status. Additionally, the kindergarten participants were coded according to their preschool experiences and categorized as: district located UPK program; nursery school or other child-care program; special education preschool program; federally-funded preschool program; or no early childhood experience. Information was obtained from the district's student management system, which stores updated demographic information. The data obtained from this system were representative of active and enrolled students who attended the district UPK program between 2009 and 2011 and the district kindergarten program between 2010 and 2013. The pre- and post-test scores of the yearly administered Boehm-3 Preschool (Boehm, 2001b) of UPK students and the pre-test scores of the Boehm-3 (Boehm, 2001a) of kindergarten students were collected from confidential student files or from staff who had conducted the assessment. The study sample from three consecutive years of data represented the compilation of 207 district UPK students and 450 Kindergarten students within that timeframe.

Classroom observations were conducted in each of three UPK classrooms on six different occasions for no less than one hour to note the language/literacy practices that occurred during breakfast and circle time. The observations were unannounced and took place on separate days. Each observation provided an opportunity to examine the essential elements and practices used in the classroom that contributed to the development of emerging language and literacy skills. After completing the observations

and in an effort to narrow the focus on the specific aspects of language and literacy, one section of the Early Language & Literacy Classroom Observation Tool Pre-K [ELLCO Pre-K] (Smith et al., 2008) was used as a benchmark to aid in the identification of best classroom practices related to early literacy. The observations consisted of free-style scripting. Each script was coded using a categorization system according to the practice observed. Both the presence of a practice was noted and how often it occurred within the observation time-frame. Data collected during the observations maintained the original dialogue, on-going narrative, and explanation of activities in the classroom to the extent possible. Each script was then coded according to conversations and exchanges between individual students (S), groups of students (G), teachers (T), teacher assistants (TA) and others (O). Once coded by conversations and exchanges, the data was broken down further according to discourse, extended conversations, vocabulary building and phonological activities. These practices were chosen based on the four scales of the ELLCO Pre-K that represent best practices of a language environment in a preschool classroom. It is important to note that the ELLCO Pre-K was not used as a measurement tool in this study, but rather as an evidence source for gauging the effectiveness of the instructional practice. The four scales from the Language Environment section used to determine the value of the coded data included: Climate Discourse, Opportunities for Extended Conversations, Efforts to Build Vocabulary, and Phonological Awareness. Level of effectiveness for the classroom practice was determined by comparing the coded data to the descriptive indicators provided as guidance on the ELLCO Pre-K tool. The observational data were then organized by scale title, descriptive definition, sources of evidence, and activity observed.

Data Analysis

This research study is a quasi-experimental design grounded in the understanding that the independent variables were unable to be manipulated and the study population would be derived from a school district convenience sample. Data were analyzed first using a Wilcoxon Signed Rank Test to determine any difference in median scores on pre- and post-test results. A non-parametric test was chosen based on archived data, which were originally recorded in a percentile format. Percentiles are considered ranked scores rather than equal-interval and as such produce more outliers than can be reasonably adjusted; therefore, percentiles do not readily lend themselves to parametric measures. Further disaggregation of the independent variables (gender, free and reduced lunch, ELL and special education status) was conducted to discover differences between group medians using the Mann-Whitney U Test. Finally, the Kruskal-Wallis Test was used to distinguish score differences between preschool type experiences of entering kindergarten students.

Lastly, a scripted narrative was produced while observing classrooms during breakfast and circle time. As previously mentioned, after coding, pertinent portions of the scripted observation narratives were extracted and delineated according to the type of classroom interactions to concentrate on those elements directly related to language and literacy development. The categorized data were then compared to the four items of the evidence rubric of the Language Environment section of the ELLCO Pre-K to provide an objective level of effectiveness, rather than a subjective opinion. Although the resulting information was not intended to be a measurement, it was reported as a level of

accomplishment on a scale of one to five using the evidence indicators and anchor statements that best aligned to the specific classroom practices observed. The results were reported by using the ELLCO Pre-K terminology related to each level: 1 = Exemplary, 2 = Strong, 3 = Basic, 4 = Inadequate, and 5 = Deficient to assist in identifying the presence and usage frequency of the language and literacy practices.

My role as the researcher in this study was integral to the observation outcomes as it relates to personal values, beliefs and assumptions, and possible biases. Observation accuracy was deemed reliable based on the observer trainings and certification assurances I received for several evaluation protocols, including preschool tools prior to conducting the observations. As such, all scripted observations contained exact words used by teachers or children and did not reference any aspect of the classroom that was not seen or heard. Additionally, as an administrator in the district of study other precautions were put in place to avoid intentional interference or infiltration of bias; and efforts to ensure objectivity were always present. This was achieved through unobtrusive data collection, nonparticipation in classroom activities, restraint from observation-related comments to staff or others in the district, and maintenance of neutrality and confidentiality throughout the process. Although my role provided opportunity to conduct this research and made it possible to contact key participants to propose and follow through on the study, it did not include interaction with the students or teachers on a regular basis. Classroom experiences throughout this study enhanced my awareness and personal knowledge of preschool issues and provided a framework for working with the key participants.

Chapter IV

Results

The purpose of this study was three-fold: first, to examine the effects of one district's UPK program on language concept acquisition based on the administration of the Boehm Test of Basic Concepts Preschool 3rd Edition (2001b) as a pre-and post-test to those participating in the district UPK program; second, to determine if there would be a difference in the Boehm Test of Basic Concepts 3rd Edition (2001a) pre-test scores upon entry to kindergarten between students who attended the UPK program and other preschool experiences; and third, to determine if there were practices used in the UPK classroom that contributed to language concept acquisition.

Archived data of Boehm-3 Preschool scores were collected on 207 UPK participants during the 2009-2011 school years and 450 entering kindergarten students during 2010 – 2012. The data were then recorded on the computer database using SPSS-18. Different methods were used to analyze each of the three research questions; therefore, the results and evidence for each question will be addressed separately to examine the findings in detail and present the supporting information accordingly.

Statistical Findings for Question 1

A Wilcoxon Signed Rank Test was used to analyze the data and to answer the first research question: To what extent was there student growth between the pre- and post-test scores on the preschool test of language concepts as a result of attending the district UPK program? The purpose of the analysis was to reject the null hypothesis, which stated, the median difference between pre- and post-tests is equal to zero. In this

case, the dependent variables were the Boehm-3 Preschool pre- and post-test scores, and the primary intervention or independent variable was the UPK classroom. A non-parametric test was chosen after using a paired sample t-test for the initial analysis. The t-test was deemed inappropriate based on the data available; specifically, the scores on the Boehm-3 Pre-K were reported in percentiles and considered an ordinal (ranked) scale as opposed to an interval scale. Additionally, the non-parametric test makes no assumption about the distributions of a population, thereby avoiding any violations of an assumed normal distribution. The first set of data included 207 UPK participants from four classrooms during 2009 - 2011 school years. The summary results are depicted in Table 5 and were used to calculate an effect size.

Table 5

Wilcoxon Signed Rank Summary for UPK Participants

	Post-test – Pre-test
Z	-11.871
Asymp. Sig. (2 tailed)	.000

* $p < .005$

The Wilcoxon Signed Rank Test revealed a statistically significant change in the Boehm-3 Preschool pre- and post-test scores following participation in the district UPK program, $z = -11.87$, $p < .001$ with a moderate effect size of ($r = .58$) using Cohen's (1988) criteria. The median score on the Boehm-3 Preschool increased from the beginning of the UPK program ($Md = 53$) to the end of the program ($Md = 89$). A significant median score increase ($Md = 30$) for the entire group was noted, suggesting that student participation in the district UPK program increased basic language concept acquisition. Figure 2 further clarifies the data and uncovers specific information about

the students and their relative scores.

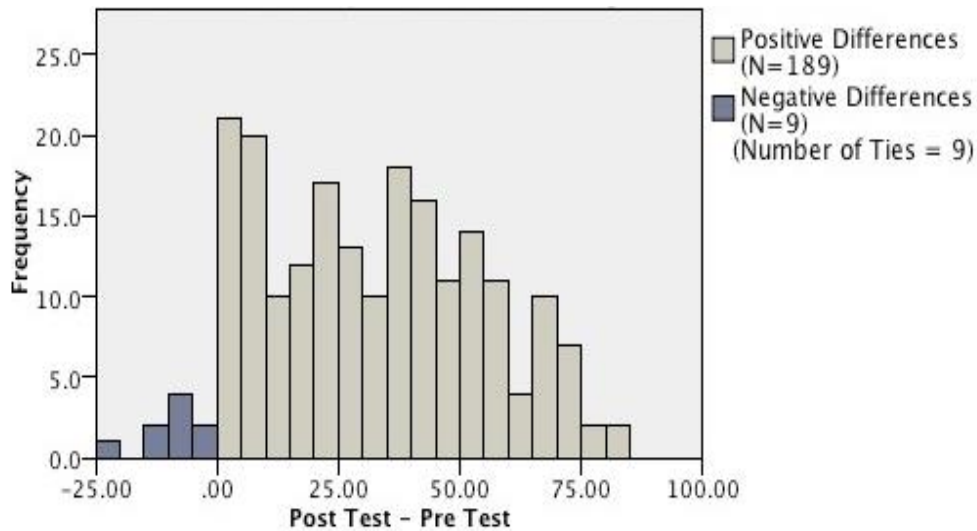


Figure 2. Related Samples Test View - UPK Score Differences

Of the 207 students who participated in the district UPK program during the 2009, 2010, and 2011 school years, the program elicited an improvement on the test scores of 189 students; while 9 participants showed no improvement and 9 others achieved the same score on both administrations of the assessment. Of note, 8 out of the 9 students who achieved the same score from both administrations were already at the 99th percentile.

Additional data analysis was conducted using a Mann Whitney U test to examine the differences among the independent groups on the continuous measure. The first independent measure analyzed was free and reduced lunch status. Table 6 identifies the number of students in each group and their collective median scores on the pre- and post-test.

Table 6

Group Size and Median Scores Based on Free & Reduced Lunch Status

Free & Reduced Lunch		Pre-Test	Post-test
No	N	105	105
	Median	66.00	94.00
Yes	N	102	102
	Median	39.50	87.00
Total	N	207	207
	Median	53.00	89.00

The sample size of UPK participants was split evenly between those of free and reduced lunch status (102) and those not in that category (105), providing a clear picture of the low socio-economic presence in the school district. Results demonstrated a higher pre-test ($Md = 66.00$) and post-test ($Md = 94.00$) score for students not in the free and reduced lunch category than those who were. Those of free and reduced lunch status posted the following pre-test ($Md = 39.50$) and post-test ($Md = 87.00$) scores. When charted, the data provided another interpretation of the effects of the UPK program on the students in the free and reduced lunch category (Figure 3).

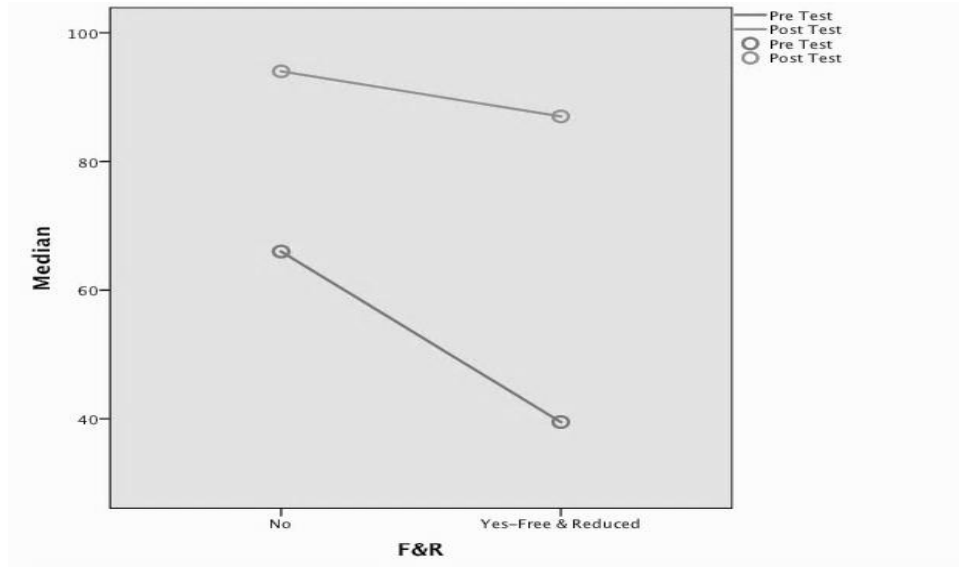


Figure 3. Median Pre-Test and Post-Test Scores by Free and Reduced Lunch Status

This graph illustrates the difference between the pre-test and post-test median scores for students with and without free and reduced lunch status. Although the students of free and reduced lunch status demonstrated a lower pre-test score than those who were not, the students in the free and reduced lunch group exhibited steeper growth from pre-test to post-test than did their counterparts. Both groups benefitted from the UPK program and students who did not receive free and reduced lunch produced higher scores on the pre- and post-test. The overall data analysis indicated that those in the free and reduced lunch group derived the most advantage for language growth.

The Mann-Whitney U was then applied to the remaining independent variables to determine if there were differences between the median scores of the remaining groups, i.e., gender; race/ethnicity; English and other speaking; and special education and other program. When analyzed by gender, females (N = 97) scored higher on both the pre-test ($Md = 58$) and post-test ($Md = 94$) than their male counterparts (N = 110) who scored ($Md = 49$) and ($Md = 87$) on the pre-and post-tests, respectively. However, no significant

difference between the groups' growth scores was evident, and both groups showed gain in language concept acquisition. Group sizes for race/ethnicity were substantially different; only 23 students were identified as non-Caucasian; nonetheless, the median scores of these groups showed no difference in gains from pre- to post-testing, proving that all races and ethnicities derived language benefit from the UPK program. Scores for the Caucasian group (N = 184) increased from pre-test ($Md = 54$) to post-test ($Md = 91$), while those reported as non-Caucasian scored ($Md = 50$) on the pre-test and ($Md = 87$) on the post-test. Only a handful of students were considered to be ELL (N = 6). This group demonstrated lower median scores on the pre-test ($Md = 23.50$) than did the English Language Speakers ($Md = 54$); yet, the ELL group scores on the post-test ($Md = 85$) were closer to their English speaking counterparts who returned post-test scores ($Md = 90$). The ELL group demonstrated steeper growth in language acquisition of basic concepts as a result of the UPK intervention, similar to the students in the free and reduced lunch group. As a group, students who received special education services for speech/language deficits or developmental delays showed the least amount of growth. A total of 16 students received special education support in the UPK classrooms during the three years. Scores for this group were not only significantly lower on the pre-test ($Md = 13.50$) and post-test ($Md = 36$), but they also presented substantially lower results than any of the comparison groups.

Statistical Findings for Question 2

The Kruskal-Wallis Test was used to analyze the data to answer the second research question: To what extent was the difference in the pre-test scores on the primary version of the language concepts test between kindergarten students who participated in

the district UPK program and those who did not? The analysis looked at the type of preschool program/experience as the categorical variable with the dependent variable being the score obtained on the Boehm-3 assessment. A breakdown of the student cohort (N = 450) by preschool experience established that a total 154 students participated in the UPK program; 89 attended a federally-funded preschool program; 63 children were in private or public nursery schools, day care, or similar four-year-old programs; 23 students attended either integrated or self-contained programs for students with disabilities; and the remaining 120 children reportedly had no preschool experience outside the home. Figure 4 illustrates the results of the Kruskal-Wallis Test analysis and revealed a statistically significant difference in the Boehm-3 scores across five different groups of preschool experiences, $\chi^2(4) = 63.067, p = .001$.

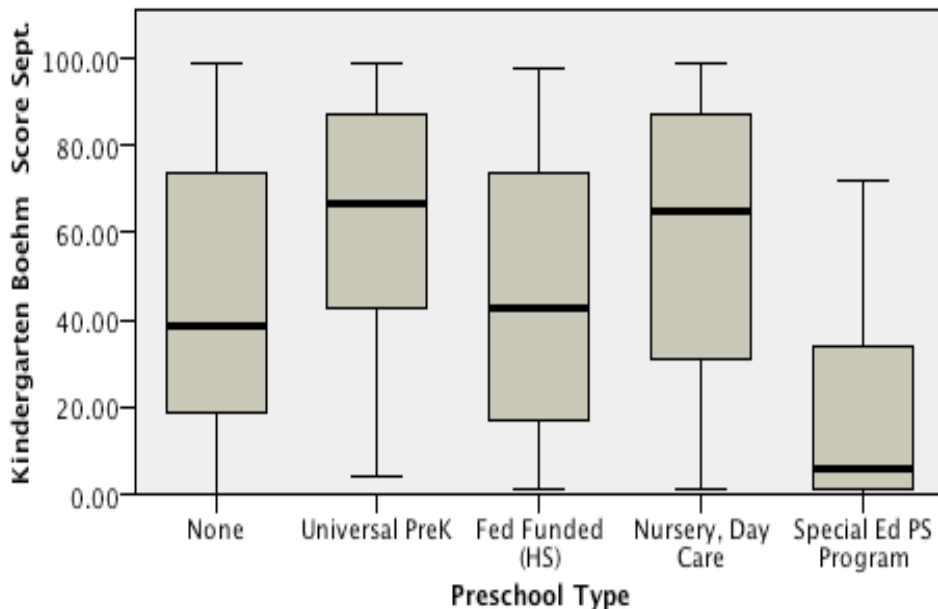


Figure 4. *Kruskal-Wallis Distribution of Kindergarten Scores by Preschool Type*

Similarities among score distributions across each group were evident (Figure 4), with the exception of the special education program, which was dissimilar to all other programs. Nonetheless, the median scores of each group differed according to the type of

preschool experience. Students who attended the UPK program recorded a higher median score ($Md = 66.50$) than all other groups; the lowest median score ($Md = 6.00$) represented the students who attended integrated or self-contained special education programs. The remaining groups exhibited the following scores: nursery and other private/public preschools ($Md = 65.00$); students attending the federally-funded program and those with no preschool experience recorded scores of ($Md = 43.00$) and ($Md = 38.50$) respectively.

To verify the overall significance in the differences and to determine which of the groups were statistically different from one another, a pairwise comparison and post-hoc test were run. Table 7 highlights the comparisons among the groups.

Table 7

Pairwise Comparison Between Preschool Types with Bonferri Adjustments

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Special Ed PS Program-None	107.041	29.518	3.626	.000	.003
Special Ed PS Program-Fed Funded (HS)	-110.384	30.333	-3.639	.000	.003
Special Ed PS Program-Nursery, Other P	164.513	31.592	5.207	.000	.000
Special Ed PS Program-Universal PreK	188.672	28.989	6.508	.000	.000
None-Fed Funded (HS)	-3.343	18.141	-.184	.854	1.000
None-Nursery, Other P	-57.472	20.176	-2.849	.004	.044
None-Universal PreK	-81.631	15.790	-5.170	.000	.000
Fed Funded (HS)-Nursery, Other P	54.129	21.351	2.535	.011	.112
Fed Funded (HS)-Universal PreK	78.288	17.267	4.534	.000	.000

Pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Statistical significance was accepted at the $p < .05$ for the omnibus test and $p < .008$ for multiple comparisons. This post-hoc comparison confirmed a statistically significant difference among the different types of preschool experience of each group, $\chi^2(4) = 63.067, p = .001$.

The post-hoc results indicated that the median score for the UPK program ($Md = 66.50$) was significantly different from the federally-funded program ($Md = 43$), no preschool program ($Md = 38.50$), and special education programs ($Md = 6.00$) ($p = .001$). A significant difference was also noted between UPK ($Md = 66.50$) and nursery and other private/public programs ($Md = 65.00$) ($p = .05$). Other differences were seen between the nursery preschool programs and the federally-funded program; however, the federally-funded program ($Md = 43$) showed no difference from the condition represented by no preschool ($Md = 38.50$). Taken together, these results suggest that the UPK program did have an effect on language concept acquisition on the Boehm-3; whereas, no preschool and the federally-funded program showed no significant increase in language concept growth on the Boehm-3 and consequently had no effect. The results also rejected the null hypothesis that the distribution of the Boehm-3 scores is the same across categories of preschool experience.

Findings for Question 3

Observational data were used to answer the third question: What research-based instructional practices used in the UPK classrooms contributed to the development of oral language and how did those practices support students' acquisition of basic language concepts prior to kindergarten? A variety of instructional practices were noted across all

preschool classrooms. To determine how these practices contributed to students' language concept development and to support the validity of the observation data collected, the language and literacy section of the ELLCO Pre-K tool (Smith et al., 2008) was used as a referent. The ELLCO Pre-K defines specific Levels of Accomplishment according to discrete criteria; therefore, observed classroom practices were compared to the criteria to obtain a designation. Table 8 illustrates Level of Accomplishment with five ranking categories from the ELLCO Pre-K rubric using an *x* to indicate the level that best represented the collected observation data. Supporting evidence in narrative form to corroborate the level choices is found in Appendix A.

Table 8

Early Language & Literacy Classroom Observation (ELLCO) Pre-K Tool Rating Rubric

	5	4	3	2	1
Discourse Climate	Exemplary	Strong	Basic	Inadequate	Deficient
	Compelling evidence of a positive discourse climate.	Sufficient evidence of a positive discourse climate.	Some evidence of a positive discourse climate.	Limited evidence of a positive discourse climate.	Minimal evidence of a positive discourse climate.
	x x x				
Opportunities for Extended Conversations					
	Compelling evidence that teachers understand the role.	Sufficient evidence that teachers understand the role.	Some evidence that teachers understand the role.	Limited evidence that teachers understand the role.	Minimal evidence that teachers understand the role.
	x x x				
Efforts to Build Vocabulary					
	Compelling evidence of instructional efforts.	Sufficient evidence of instructional efforts.	Some evidence of instructional efforts.	Limited evidence of instructional efforts.	Minimal evidence of instructional efforts.
	x x x				
Phonological Awareness					
	Compelling evidence of formal and informal opportunities.	Sufficient evidence of formal and informal opportunities.	Some evidence of formal and informal opportunities.	Limited evidence of formal and informal opportunities.	Minimal evidence of formal and informal opportunities.
	x x x				

The designations on the rubric indicate the classroom use of the practice for each of the items in the Language and Literacy Environment Section. Each designation is based on the compilation of evidence collected over a 6-month period and signifies a collective representation of all data. Many of the observed interactions and conversations fall into more than one category, but are listed in only one for reporting purposes. To

further understand how the observed behaviors are supported by key items of the ELLCO PreK, a definition of each item is provided followed by examples of the observed teacher practices, which are delineated by each indicator:

Discourse Climate – A positive discourse climate actively engages children in conversations that facilitate the mutual exchange of ideas, opinions, and feelings.

Examples observed in the UPK classrooms:

- Students taking turns each day reading the same book at circle time followed by a discussion about the behavior of the cat in the book and how it relates to classroom behavior.
- Teachers asking open-ended questions and engaging students in extended conversations.
- Students interacting with each other during breakfast, play, circle-time, and lesson activities i.e., small group reading during free time, they begin reciting the alphabet – one student suggest saying it backwards, so they do).
- Questions being asked by students and teachers with ample opportunity to respond and discuss (i.e., circle time – 12 individual interactions and 3 group interactions within 3 minutes)
- Conversations related to classroom routines, attendance, lessons, and other school related topics (i.e., 6 students waiting at rug for circle time to start; 10 interactions among them in 5 minutes, students sitting at table waiting for breakfast –18 different student interactions in 5 minutes; students start singing Happy Birthday to the teacher with “cha, cha, cha”).

- Reminders to students to use their words when attempting to resolve conflict or explain an issue (e.g., S - Matt won't let me read with him. T - Really, did he say that...what did you say? S - Matt, can I please read with you? T - Go over and ask him just like that and I'll watch. S - Do you think I can read another book?
- T - Do *I* think you can? Of course, *you* do.)

Key - S = student, T = teacher

Opportunities for Extended Conversations – An environment in which teachers understand the role extended conversations play in children's oral language development and select topics that engage children in conversations about their ideas, experiences and curriculum activities.

Examples observed in the UPK classrooms:

- Varied planned and unplanned interactions (e.g., teacher to student, student to student, teacher to group, student to teacher, student to group).
- Open-ended questions posed (e.g., What do you predict for January? Why did you pick that one? How did you know that? What else can you tell me about that? That's interesting, what do they do? Why do they need to eat?).
- Encouraging and prompting for explanation rather than short answers during circle time (e.g., That's good, why did you say that? Why on green?).
- Students initiating conversations with each other on topics that have either been discussed previously in class or are of personal interest, such as seahorses, ice cream, bugs, toothbrushes, classroom behavior, twins, birthdays, weather, shoes, family, kindergarten, books, traveling, initial sounds, counting, and more.

Efforts to Build Vocabulary – A rich vocabulary environment displays evidence of instructional efforts to expand children’s spoken vocabulary.

Examples observed in the UPK classrooms:

- Systematic instruction when introducing new words (e.g., Word of the week – *agitate*. Now let me explain the difference between (teacher providing examples and non-examples of words, scaffolds students’ attempts at words). Are you thinking of...? Who is the *author, illustrator* of the book? What do they do?)
- Strategically incorporating basic concepts into directions, feedback, and lesson conversations during circle time (e.g., What comes after... before ... next ...? Do you want to *transition* to rhyming words *next*? Marcus will you handle that situation *first, before....*? Whoa, you are going like *warp speed* – let’s slow *down*. Is that *above* or *below*? What do you *predict* will happen *next*? Let’s *begin* this *randomly* – it makes it more *exciting*. Take this to the *back* table.)
- Teacher modeling of word usage (e.g., It’s almost like you’re a *meteorologist*. Wow, that is a *wardrobe malfunction*. Watch out, that could be an *avalanche*. I need clean up *detectives*. Let me put out a *disclaimer* here. That answer was *ultra-specific*. Silly? That’s a little *ridiculous*.)
- Student use of words after introductory lesson (e.g., He needs to be more mature, T – Yes, what does it mean? He is *bold*, because... We are singing the alphabet *backwards*.)
- Use of basic vocabulary words and those that may be considered Tier 2 words according to Beck, McKeowan & Kucan (2013) (see italicized words).

Phonological Awareness (PA) – An environment where formal and informal opportunities are designed to build children’s sound awareness.

Examples observed in the UPK classrooms:

- Focusing on phonological awareness during circle time (e.g., Let’s review these sounds. Listen for this sound. Listen for the rhyming words. I’m going to read the poem and leave out the rhyming words for you to say. What are the words that begin with “W”? How many syllables in that word? Let’s clap it out. What sound does Sunday start with.. what letter? “J” says what? Whose names start with that sound? His name does start with “V”. I picked this name, here’s a hint, it starts with this sound. The word is goat, what real words rhyme with goat? Casey, can you spell your name for me? First say it, then spell it. Did you hear the “A”? Let’s start over. S - I didn’t even know I had an “A” in my name. T - That’s what I’m here for. S - I do have an “A” in my name!)
- Incorporating into directions and routines (e.g., Everyone whose name starts with please stand up. If you have a “W” sound in your first name line up, in your middle name, in your last name. You don’t? Let’s sound it out.)
- Progress monitoring (e.g., What sound do you hear at the beginning of this word? What do these letters say?)

The observation examples demonstrate compelling evidence for Discourse Climate, Extended Conversations, and Efforts to Build Vocabulary, which, if measuring performance, would translate to a Level 5 or Exemplary in each of these areas and sufficient evidence on Phonological Awareness, indicating a Level 4 or Strong in this particular area on the ELLCO Pre-K Tool. The designation level on the first three items

is supported by the data that revealed multiple opportunities for engagement of children in conversations and numerous possibilities for participation that facilitated classroom discourse. Additionally, a variety of interactions between teacher and student(s), as well as peer interactions during breakfast and circle time were observed. All of these interactions served to extend conversations on a wide selection of topics, thereby promoting content and language learning, systematic vocabulary instruction during group lessons, explicit modeling of basic and higher tiered words (Beck, et al., 2013), and a variety of strategies, such as scaffolding for vocabulary building throughout lessons and activities. Phonological awareness was very much present during the observations with teacher usage of correct terminology. The incorporation of sounds into circle time activities and directions as demonstrated by the collected evidence did not show an intentional or consistent instructional pattern of application, which is necessary for a higher designation.

In order to further validate my observation ratings, I obtained past observation evidence from files held by the UPK Program Director. These previous observations were conducted in 2012 by an independent observer using the Early Childhood Environment Rating Scale [ECERS-R] (Harms et al., 2005), the tool previously approved and used in the QualitystarsNY (NYSECAC, 2013) program quality determination as part of the evaluation process. The ECERS-R (Harms et al., 2005) consists of 15 items that require the presence of classroom evidence for scoring; three of the items in this tool share similarities with the four items in the ELLCO Pre-K language and literacy section, but are titled differently and can have different interpretations. The intersecting topics that supported the present study observation topics included: adult reading with children

(discourse), sounds in words (phonological awareness), and talking and listening (extended conversations). Each of the 15 items on the ECERS-R was scored on a scale of 1-7, with 7 being the highest score. To compare the results of my study observations with the 2012 classroom observations, the actual scores of each teacher on the three similar items from the previous observations were averaged together resulting in one composite score for each item. The collective average score for each of the similar items were all in the high range: Item #3 Adult Reading with Children = 7, Item # 4 Sounds in Words = 6.5, and Item # 6 Talking and Listening = 7. These ratings were consistent with the ratings of the present study and lent credibility to the findings of my observations. These similar results further supported the use of research-based instructional practices in the UPK classrooms that contribute to the development of oral language.

Summary

The overall results found that the district UPK program made a difference in student growth on language concepts based on the instructional practices employed by the classroom teachers. There was further evidence to confirm the benefits of UPK attendance related to the acquisition of basic language concepts when compared to peers who participated in other types of preschool experiences. Additionally, the findings provided evidence to support previous studies that have demonstrated the value of process features in the determination of quality programs (Mashburn et al., 2008), and the essential role that oral language plays in student achievement (Hayes et al, 2001-2002; Lonigan & Shanahan, 2010; Wasik, Bond & Hindman, 2006). Finally, these results convey important information that can be used to influence the future of quality UPK programs in districts across New York State.

Chapter V

Discussion and Conclusion

Discussion of the current study commences with a summarization of the two study outcomes based on qualifying results and the significance of findings related to the use of the Boehm Test of Basic Concepts Preschool 3rd Edition (Boehm, 2001b) as an indicator of student growth in language concept acquisition after participation in the district UPK program; and an investigation into whether the district UPK student scores differed on the Boehm Test of Basic Concepts 3rd Edition (Boehm, 2001a), as compared to the scores of students who participated in other preschool experiences. This section is followed by a discussion of the implications for early childhood programs, specifically the quality features of the UPK program and how they relate to teacher practice. Finally, an examination of study limitations is presented in an effort to inform future research on this topic.

This study set out to explore the magnitude of one district's efforts to build a quality UPK program by focusing on not just the structural features of quality, but the more important features of process quality to promote the acquisition of language concepts, vocabulary, emergent literacy, numeracy and social-emotional development for all students who participated. The study also sought to substantiate program quality and effectiveness through the examination of student achievement data at both the UPK and kindergarten level. The theoretical literature on this subject, expressly within the context of universal access to prekindergarten is inconclusive on several questions that are vital to the future of these early childhood programs within the United States. This study explored the answers to two questions related to the viability of universal prekindergarten

programs:

1. Do children who attend the district's UPK program demonstrate an increase in language growth?
2. Do the children who attend the district's UPK program have a language advantage over other entering kindergarten students?

The foremost empirical findings regarding the importance of early childhood language development are summarized within the Introduction and Literature Review sections. Highlights of the empirical research are presented to support the analysis results of this study's two quantitative research questions and the findings of the third qualitative question.

Discussion of Question 1

First, do children who attend the district's UPK program demonstrate an increase in language growth? This part of the study focused on student acquisition of language concepts as measured by a pre- and post-assessment on the Boehm Test of Basic Concepts Preschool 3rd Edition (2001b). The most obvious finding to emerge from this study is the confirmation that students who attended the district UPK program did indeed demonstrate growth in language ability, explicitly with basic concepts, because of the classroom practices employed by the teachers. This result clearly demonstrates the prominent role instructional practice plays in student language and literacy development, and as a process feature in the determination of preschool quality (Cunningham, 2010). More specifically and noticeably evident during the classroom observations was the 'rich talk' used by the teachers to promote various types of interactions, vocabulary enrichment, the exchange of ideas by extending conversations, and connections across

integrated curriculum through discourse (Roskos, Christie & Richgels, 2003; Sylvester & Kragler, 2012). These early childhood practices are solidly supported by two of the leading associations in the field of language and literacy, the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC).

To define which students derived the most benefit from the UPK program, the control variables were broken down by population demographics, such as race/ethnicity, free and reduced lunch status, English Language Learners (ELL), and students with disabilities. The results indicate that variation between specific populations is associated with a variation in student performance. The students with disabilities demonstrated the greatest variance among the groups with the lowest growth scores overall. This finding is consistent with the Kavale (1982) and Spector (1979) studies, which found that students with learning and/or language difficulties face greater challenges in acquiring basic language concept skills than do their grade-level peers. Each of the remaining demographic groups demonstrated growth from pre- to post-test scores; however, the results indicate that the UPK classrooms delivered the most added value to the students in the ELL and free and reduced lunch groups. This is striking in view of the abundant recognition and sometime rhetoric given to closing the achievement gap for students in poverty prior to kindergarten. Studies have found that the achievement gap between children of affluent and low-income families is double that of the testing gap between Blacks and Whites, placing the children of low-income families at the greatest risk (Doggett & Wat, 2010). Therefore, the results of this study demonstrate the academic value of sending children from low-income families to UPK programs that promote and

incorporate all aspects of emergent literacy into their daily activities (Cunningham, 2010; Dickinson & Tabors, 2001; McGill-Franzen, Lanford & Adams, 2002). In addition, the studies of Clifford, Bryant, & Early (2005) and Pianta et al. (2005) contended that children who fall into the readiness gap category benefit most from attending a quality prekindergarten program where the environment is rich with language. Dickinson & Tabors (2001), who found that an effective language-based preschool program serves as the base for later literacy expansion for all students, give further credence to this important finding. Without this expectation, a child who enters kindergarten and is placed at risk is often unprepared for the high standards and rigor that come with validation of school district accountability.

Question 1 also relates indirectly to the program quality conversation being raised by universal prekindergarten supporters and pundits. Although systems are currently in place to evaluate the structural features of prekindergarten programs to ascertain quality, the structural features alone have little bearing on students' abilities in the areas of language or literacy (Camelli, Vargas, Reynolds, Barnett 2010; Lowenstein, 2011; & U.S. Department of Health and Human Services, 2013). Since its inception, the district prekindergarten program met or exceeded all of the criteria set forth by the NIEER (2011) infrastructure quality standards and the state UPK regulations. Even so, UPK staff felt compelled to engage in professional development and ongoing dialogue about core standards, curriculum, lesson design, instructional techniques, progress monitoring, and other process features that are essential to an overall quality program. UPK staff embraced the practice of system alignment across processes referred to as *systematicity*, although they were unlikely to be familiar with the term, it is a way of

operating programs that increases the likelihood of quality (Pence, 2008), which was demonstrated through the study results. When *systematicity* occurs, all program components are aligned to expectations that drive best practices and ultimately promote student achievement and foster readiness for kindergarten. The connection between the research and the results of this portion of the study leads one to conclude that the district UPK program exemplifies many of the process quality features.

The process features approach to defining quality is opening up new research frontiers and in a small way, this study gives credibility to the intention of this approach. Study findings after the examination of publicly-funded prekindergarten programs across several states using the standards of infrastructure method, classroom environment observation, and observation of teachers' instructional interactions confirmed that the quality of the classroom interactions is the critical factor directly associated with children's acquisition of skills (La Paro, 2004; Mashburn et al., 2008).

Discussion of Question 2

The second phase of this study responds to the question, do the children who attended the district's UPK program have a language advantage over other entering kindergarten students? In an effort to lay a solid foundation for literacy, students are assessed upon entry to district kindergarten classrooms. This is an indispensable practice in view of the literacy exposure disparities that exist among children based on their 'world of language' prior to entering school (Goldstein, 2011). Most of the disparity can be attributed to the amount of "literacy socialization" that occurs across home environments (Snow, Burns, & Griffin, 1998; Hart & Risley, 2003; van Kleeck & Schuele, 2010). Moreover, the presence of cognitive supporting materials is also integral

to language development; however, they are generally more restricted or lacking entirely in lower-income homes resulting in the likelihood of even less language exposure. Lack of preparation due to any combination of risk factors can ultimately lead to poor school readiness (U.S. Department of Education, 2006). One way, according to Kagan & Reid (2008), to overcome the factors preventing school success is by having the government provide additional educational opportunities, such as universal access to prekindergarten for preschool-aged children.

At this juncture, government-funded universal access to prekindergarten for all is not an option; therefore, awareness of the variance in students' language abilities allows teachers to plan accordingly for the deficits that could potentially interfere with reading achievement. Because reading development is the result of two distinct interacting factors, oral-language skills and code-related skills (Storch & Whitehurst, 2002), particular attention to how children acquire these skills is critical in order to lay the foundation for later literacy.

Prior to district-wide execution of a standardized language assessment, the kindergarten teachers alleged that students who attended the UPK program entered with higher language skills, even though there was no solid evidence to confirm that belief. Since 2008, consistent implementation of the same evaluation tool in both UPK and kindergarten, the data provided the teachers with information, but not the statistical evidence necessary to validate their position.

Exploring this phase of the study allowed me to offer an evaluative perspective on kindergarten readiness, based on the preschool experiences that were shown to increase language skill acquisition. As such, the findings related to the second question indicate

that the students enrolled in the district UPK program did score higher than the students who participated in other preschool experiences; and furthermore, they posted scores that were significantly different from several of the other options.

This achievement can be attributed to the type of setting selected for student placement, sometimes by choice, but often out of necessity. In this study, the private/public nursery school options were placements by choice and cost was not a factor. Notably, the resulting scores for this group were closer to those of the UPK group, yet significantly different from the other three groups. Understandably, preschool programs that support the language development and emergent literacy of children are available; however, these options are not free and therefore not accessible to all four year olds. This leaves many children, in programs or in child-care settings that lack structure and tend to allow more self-directed play, which can neglect the development of language and literacy skills. Additionally, quality in these settings may be compromised due to under regulation or lack thereof and can lead to potentially harmful effects on children (Adams, Trout & Zaslow, 2007). Because settings of this nature center more on child recreation and less on overall learning, the transition and adjustment to school-age programs becomes more difficult and places children, who may already be placed at risk, in an achievement deficit situation (Magnuson, Ruhm & Waldfogel, 2004; Ruhm & Waldfogel, 2011).

The research literature linked to preschool settings is supported by this study's findings. Comparison differences were significant between the UPK program results and those of the children who attended a federally-funded program or no program. Conversely, the data found similarly low scores between the students who reportedly did

not attend any program and those in the federally-funded program setting. This is one of the more significant findings to emerge from this study and speaks to the concern of the instructional practices being employed at the prekindergarten level in this particular setting. Although no observations were conducted in this setting for comparison purposes, familiarity with the program opens the door for speculation. Are there similarities to the study conducted by Sylvester & Kragler (2012, where the examination of instructional practices demonstrated limited gains in language due to the restrictive nature of a mandated curriculum and/or lack of consideration for literacy research? If teachers loosely adhere to prekindergarten standards, using a curriculum that is too vague or too narrowly focused, or are not provided the necessary professional learning opportunities to explore best practices, then the development of children's oral language and emergent literacy skills are restricted. The findings of the present study were analogous to the findings of Sylvester & Kragler and provide a new understanding of what is needed to improve student results on standardized measures.

Discussion of Question 3

Observation conclusions from this study agree with previous research analyses that found a strong connection between students' skill acquisition and the established pattern of classroom interactions being used within the UPK classrooms (Mashburn et al., 2008). The degree of frequency and intensity to which the interactions took place differed depending upon the classroom observed; nevertheless, all of the following interactions were noted observations in every classroom. All teachers addressed students by name and used silly nicknames for some students to foster belonging and social development. Teachers used strong words of encouragement to praise, reinforce, and

correct students on a consistent basis. Students initiated interactions with peers and adults and then engaged in extended conversations. There was a primary focus on shared book reading among children and adults alike. A rich variety of vocabulary was presented to students both during structured lessons and in spontaneous conversations; the students in turn used some of those same words in their own interactions during play with peers and at circle time with the teacher. Many opportunities for formal and informal language exchange, phonological skill building, reading, writing, and discourse on topics of choice were visible throughout the observations. These behaviors were well thought out, abundant, playful yet intentional, and most importantly monitored by the teacher to assess development and growth. The presence and extent of these literacy practices used in each of the UPK classrooms were linked to specific indicators on the ELLCO Pre-K rubric, which correlated to a designated level of accomplishment. After comparing the observation data to the evidence indicators, the results rendered an accomplishment level of Strong to Exemplary for each of the teachers, signifying high use of the practices found within the Language Environment section. The relevance and focus on process quality were supported by strong research evidence endorsing the theory that children who are enrolled in classrooms with an emphasis on process features derive greater benefits compared to children attending programs that do not stress process quality (La Paro, 2004 & Mashburn et al., 2008). That being said, the findings of this heuristic study contribute to the existing body of knowledge that aims to elevate the *process* feature of quality to a higher level, in order to obtain a more robust picture of program quality.

Study Limitations

Although the current study contributes to the existing knowledge of universal prekindergarten viability in terms of quality and student achievement, the results should be interpreted judiciously in light of a number of limitations. A major limitation was the narrow focus of the assessment measure and its generalization to the broader view of literacy. The use of a convenience sample reflective of real-world classrooms placed a degree of constraint on research oversight and may have implications for variation in scores from year to year. The inability to conduct observations across all preschool options narrowed the global perspective; therefore, data to link program practices to achievement should be carefully considered within the larger picture. Lastly, the percentile scores from the pre- and post-tests limited the type of measures that could be utilized to determine differences in test score growth. If future studies of this nature are conducted within the UPK program, there may be benefit to using converted raw scores for comparing means and standard deviations associated with the pre- and post-tests.

Final Remarks/Implications

This study confirms previous research findings and adds to a growing body of literature pertaining to student language acquisition, instructional practices, and the quality of UPK programs. Despite its limitations and exploratory nature, the study demonstrates the differences in student language concept acquisition based on UPK attendance; the data, although unique, cannot clearly distinguish achievement in other academic or social areas. The results, on a small scale, provide a snapshot of how instructional practices lead to student growth and how they can ultimately contribute to

the quality of any universal prekindergarten program. Taken all together, the findings of this study and previous research suggest that the instructional practices used in universally accessed prekindergarten programs can likely provide students placed at-risk (i.e. low socio-economic status and ELL) with the language concept base they need to be successful upon entry to kindergarten. However, to assess the true effectiveness, a follow-up study that tracks the students' long-term achievement and progress is needed.

The implications of these findings may be useful to others interested in evaluating the value of a preschool program using similar measures of student achievement. The study may also be used to inform other universal prekindergarten programs of best practices linked to the creation of a language and literacy environment, to afford more students the benefit of a high-quality program. Finally, it may be helpful in the lobbying efforts of those concerned with securing statewide funding in the quest to make “universal” prekindergarten a reality.

APPENDIX A

Classroom Observation Scripted Notes

A. Observation Narrative # 1

Example: Breakfast/Free time

Students moving to tables as they pick up breakfast. Most tables have four children seated. Children are conversing with each other, while the teacher and teacher assistant monitor the tables and talk to the children. Students are allowed to direct questions and comments to the teacher out loud.

S: Tells the teacher he will be going to school x for kindergarten next year.

T: Yes you are. How do you feel about that?

S: I'm excited because my sister goes there.

T: Asks all the children if they know the name of the school they will be attending.

G: Calls out the names of their respective schools.

G: Talking to each other at their tables about their schools.

T: Follows up with comments about how awesome they will be in kindergarten and asks how many are going to each school. Students raise their hands accordingly.

T: (Inquires of class) Who is not here today?

G: Looking around, calls out names of absent student.

S: He is at the doctor's today.

T: Oh that's too bad. I hope he is okay.

T: Moving from table to table, engaging students in conversation about their breakfast or what they did last night. Each student responds in turn.

As students finish their breakfast, they clean their table spot and move to different areas in the room for a brief free time while waiting for all to finish eating. There are several small group conversations going on at different activity centers.

A group of seven students is in the book center conversing with each other while looking and pointing at books together. Students spontaneously start reciting the A, B, C's out loud in unison. Next they begin to recite it backwards. After they finish, the teacher comments:

T: Wow! How did you know how to do that?

S: We looked at the alphabet cards and read them backwards.

S: Let's do it the right way again.

G: Begins reciting again, all students in the class join in, including those at the table finishing breakfast and those in other centers.

Key - S: Student, T: Teacher, G: Group

B. Observation Narrative # 2

 Example: Circle Time (9:30-10:15)

Some students finishing breakfast; others engaged in quiet activities (e.g., looking at science books and discussing with the teacher assistant). The teacher is in another area of the classroom progress monitoring a student on letter identification). At 9:30, the teacher announces that it is time for circle. Students in the book corner do not respond. Teacher puts her hands around her mouth like a megaphone and calls out, “Attention, it is time for circle, are you coming over?” Students immediately put their books away and proceed to the circle. There are 15 students present in the circle.

T: Let’s start with the calendar and weather. What month is it?

G: March.

T: Let’s clap the syllables for March.

G: Claps once.

S: At calendar, counting the days beginning at 1.

T: What comes after 16?

S: 17.

T: You were warp speed with that answer. Everyone, let’s say the whole thing. Today is...

G: Today is March 17th, 2013.

T: Next, let’s talk about the weather. Marcus, you’re the weather reporter today, what is going on outside?

S: It’s sunny; everyone is going to be hot.

S: But it is still pointing to rain.

T: Marcus, handle that situation for us please. What do you predict for tomorrow Marcus?

S: Snowy.

T: Get out of here—it’s almost like you’re a meteorologist.

S: Changes the clothes on the weather figure.

T: High-five for making that connection-that would be a wardrobe malfunction for sure!

T: Now, whose turn is it to read our book “Cookie” today? Tommy walks to the teacher position and takes the book. *(see following observer note)

T: Read us the title please. Who is the author? What does he do?

G: Responds accordingly

T: Who is the illustrator? What does an illustrator do?

S: Tommy reads the book aloud to the other students (teacher reminds him to show the pictures to the class).

T: Nice job Tommy. Now where are you going to place “Cookie” today based on his behavior?

S: On yellow.

T: Really, why?

S: He is bold.

T: Bold huh? What do you need to tell him?

S: He needs to start acting more mature.

*Observer note: This is a book about a cat that misbehaves and is read everyday. At the beginning of the year, the teacher read the book aloud, demonstrating shared book reading, now the children take turns reading it each day. Many have memorized the story, while others know some of the words. The teacher makes no corrections during the reading, as it is strictly about sharing.

At the end of the reading, the child reading the book is given an opportunity to decide what behavior level the cat should be on, Green for good behavior, Yellow for needing a reminder, or Red for not following the rules. There is no right or wrong answer, but students are asked to justify their decision. For instance, during another observation the student put the cat on green because he indicated that the cat was sorry for his behavior and deserved another chance.

T: We have three minutes until outside time. Let’s see how many sounds and rhyming words from the poem we can review before we finish up here. (Poem is on chart paper next to teacher). As we sing the poem, I want you to listen first for words that start with the “W” sound.

G: Singing poem to tune of Mary had a little lamb.

T: What are some of the words you heard that start with “W”?

S: Willy, Wanda, Wear, When.

T: Yes, I’m so glad you could hear that! (Points to the words as students say them).

Shall we transition to rhyming words now? Let’s start with flat...it’s a good word to start with. Let’s say it together.

G: Flat.

T: Raise your hand if you know a word from the poem that rhymes with flat.

S: Hair.

T: No, not hair. What did she want him to wear?

S: Hat.

T: Now you have it. Flat, hat.

T: (Looks at time)...It’s time to get ready to go outside. (Kids start to move).

T: Whoa, baby, whoa. Let’s do this in orderly fashion. If you have the letter “W” in your first, middle, or last name, you may go get ready.

G: Students get up, some indicate where the “W” is in their name.

T: Holy Toledo Batman! That was a lot of W's.

T: Now, if you have the letter "A" in one of your names you may go.

S: More students get up.

T: Jocelyn, where is the "A" in your name?

S: My name is Jocelyn Star.

T: Good for you.

S: Minha says: "A is the last letter of my first name".

T: That was ultra-specific, Minha, I love it! (One student still sitting on rug.)

T: Jim, can you spell your name for me?

S: J, A.

T: (Says sounds in name again) J I M, did you hear an A?

S: No.

T: What is your last name?

S: Casey.

T: Do you hear an A? (Student struggles with identification of letter) C, A, S, E, Y,
there is an A in your last name.

S: I didn't even know that.

T: That's why I'm here.

S: I do have an A in my name!

Key - S: Student, T: Teacher, G: Group

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