

**TEACHER PERCEPTIONS AND CLASSROOM OBSERVATIONS OF
WRITING OPPORTUNITIES IN PREKINDERGARTEN CLASSROOMS**

A Dissertation

by

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Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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May 2014

Major Subject: Curriculum and Instruction

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ABSTRACT

This multiple-article dissertation examined secondary data collected by an educational service center in a large area of southeast Texas to analyze the similarities and differences in writing practices of prekindergarten teachers. The aim of this study was to determine the direction of future professional development sessions and coaching to support the implementation of writing in prekindergarten. The first study investigated teacher perceptions of writing practices and writing usage by type and frequency as collected through descriptive statistics and analysis from a self-report study. The second study examined the educational use of writing and writing artifacts through observational research of three interacting components in prekindergarten classrooms: the teacher, five students, and the overall classroom. Four different educational environments were investigated: rural, suburban, urban, and private schools. Authentic classroom behaviors and differences between monolingual and English Language Learners (ELLs) were investigated in relation to their use of writing.

The findings from both studies revealed great variability from frequent to infrequent classroom use of writing. The results from the first study revealed that a few classrooms used writing to a great extent, especially in dramatic play areas, such as a doctor's office or restaurant to enhance play. In other classrooms, teachers reported that children write their names on a regular basis or draw pictures in journals, but otherwise do not use writing. In many classrooms, the Morning Message or lists were developed as a teacher-child collaborative effort during shared writing, but often these activities did

not take place. The second study revealed how writing usage in the classroom also varied, from procedural skills, such as tracing and copying letters or words, to conceptual use, creating stories using drawings and invented spelling, to the implementation of a fully developed Writer's Workshop in prekindergarten. Results suggest that prekindergarten teachers are generally unsure how to use writing in the classroom, how often to use it, and how appropriate its use is with young children. The implications of these studies provide useful information on current practices and suggest that professional development and coaching may enhance teaching practices by demonstrating ways to increase access to writing opportunities.

DEDICATION

This dissertation is dedicated in loving memory to my parents, Kenyon and Marion Parsons, who taught me by their example to be a life-long learner.

ACKNOWLEDGEMENTS

I would like to extend my gratitude to my committee chair, Dr. Waxman, and my committee members, Dr. Dixon, Dr. Viruru, and Dr. Padrón, for their willingness to provide guidance and support throughout the journey of this research. Dr. Waxman, I cannot thank you enough for helping me focus on my purpose, for redirecting when I found myself going off course, for editing all the way through, and for sticking with me through to completion. Special, heartfelt recognition is extended to Dr. Kayla Braziel Rollins, who came along at just the right time with an abundance of encouragement and help (more than once); you were truly a blessing to me! I would also like to extend special appreciation to Steve Graham and Laura Cutler for allowing me to use the survey they developed for their national study on writing practices of primary teachers.

Gratitude and appreciation are also expressed to my friends and colleagues at Texas A&M University, especially my carpool buddies, Diane and Susana. I am especially appreciative of the Texas prekindergarten teachers and students who were willing to participate in the study, either by completing the survey or by opening their classrooms to participate in the observation research. To Region 4 Education Service Center, I am thankful every day for the opportunity to work in such a high-quality learning environment, where my interactions with teachers became the motivation for the present study. Special thanks to Jennifer, Charlotte, and Sonja, who walked beside me on a daily basis through the ups and downs of this adventure.

An exceptional thanks goes to my husband, Randy, who not only insisted that I go on this journey, but did everything he could to support my efforts for the past six years; you are amazing! To each family member, especially Susan and Mary Lee, two of my sisters, and Calvin and Wilma Hogan, my parents-in-law, I thank you for the constancy of your encouragement, patience, and love. A special thank you goes to Jill, who always made sure I took a break, you are precious to me! To my precious grandchildren, Denton, Reed, Cody, Kylie, and Emma, who were born during these six years and who showed me that reading and writing really do begin at birth, thank you! You all will always be my inspiration!

Finally, to my prayer warriors, I thank you from the bottom of my heart! “For we are God's workmanship, created in Christ Jesus to do good works, which God prepared in advance for us to do” (Ephesians 2:10 NIV). You helped me to remember that this academic excursion was first and foremost a spiritual journey, and one that I most certainly did not travel alone.

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CHAPTER I

INTRODUCTION

Chapter I reviews the research on writing in prekindergarten, including writing in young English Language Learners (ELLs), and describes the context for this multiple-article dissertation. The first part of the chapter describes the relationship between reading and writing and maintains that writing does not receive the same attention in research or in the classroom as reading. Because of the number of concurrent skills that are developed through writing to support reading, a lack of attention to writing is problematic. The second part of this chapter highlights the necessity for intentional teaching in prekindergarten, as well as a focus on the dispositions for learning that are developmentally motivating to a young child. Taken together, the reason for an investigation on writing in prekindergarten is established, with the ultimate purpose of providing guidance to teachers through professional development and coaching.

Numerous researchers and literacy scholars have described reading and writing as reciprocal, parallel, concurrent, interrelated, complementary, and/or simultaneous processes (Anderson & Briggs, 2011; Clay, 1975, 1998; Fitzgerald & Shanahan, 2000; Johnson & Keier, 2010; Kucer, 1985; Kucer, 2001; Pardo, 2004; Shea, 2011; Stotsky, 1983; Sulzby & Teale, 1985). Effective teachers can scaffold, support, and even accelerate instruction within this dynamic relationship by assisting children to use what they know about reading to support writing, and vice versa (Johnson & Keier, 2010; Scharer & Pinnell, 2008). Reading and writing have been found to be closely connected

through their purposeful use, their common items of knowledge, and their similar problem-solving strategies (McCarrier, Pinnell & Fountas, 2000; Scharer & Pinnell, 2008). Despite the evidence for this synchronous relationship and strong reading/writing connections, writing has not received the same emphasis in early childhood classrooms and it is often considered as reading's silent partner or as a secondary interest to reading (Dyson, 2002; Gunn, Simmons, & Kameenui, 2004; Hovland, Gapp, & Theis, 2011; Mayer, 2007). In short, writing often takes a less important role to reading, both in research and in the classroom.

While reading and writing are frequently mentioned together in articles appropriate goals for young children, scientifically-based research chiefly focuses on reading, with very little emphasis on writing. When writing is mentioned, it is often independent of reading. While teachers in prekindergarten can receive some support from research on writing in primary classrooms, this is sparse in comparison to reading research. Dyson (2002) explains that expectations for writing rarely go beyond direct instruction or structured practice, focusing on letter formation, rather than on open-ended, child-constructed stories. Moreover, there is little expectation for writing for different audiences or in response to different genres and very little emphasis on indirect instruction (Dyson, 2002), which is valued in prekindergarten.

Clay (1998) defends the integral role that writing plays in building the inner control of literacy learning that is considered necessary for the development of a successful reader. Writing is critical to the development of a young child in the way that it fortifies and stimulates decontextualized thinking and metacognition, stimulates

creativity, and promotes collaboration and negotiation among peers (Bodrova & Leong, 2003; Boyle & Charles, 2011; Dyson, 2002; Larkin, 2009; Owocki, 1999; Roskos, Christie, & Richgels, 2003; Wiseman, 2003). Rather than the commonly held belief that writing develops after listening, speaking, and reading, learning to write in some children precedes learning to read (McGill-Franzen, 2006), and develops concurrently with other aspects of early literacy development to strengthen oral language and reading (Jacobs & Crowley, 2010, Shanahan, 2005; Teale and Sulzby, 1989).

Children, including English Language Learners (ELLs) write before they are orally fluent and use drawing to explore their thoughts; the interconnection between writing, drawing, and talking helps children represent their thoughts symbolically and facilitates the creation of a more developed story than what children could construct on their own (Boyle & Charles, 2011; Jacobs, 2010; Samway, 2006). Research consistently shows how emphasis on writing activities improves reading achievement, providing evidence that invented spelling helps to develop phonemic awareness, promotes the alphabetic principle, and encourages interest in words, what they say and how they are spelled (Adams, 1990; Center for Early Literacy Learning, 2010; Clay, 1998, Neissen, Strattman, & Scudder, 2011; Ouellette & Sénéchal, 2008; Strickland & Shanahan, 2004). Invented spelling, along with oral language development, alphabet awareness, phonological awareness, and print awareness are among the most critical skills in prekindergarten programs for later academic success (Neissen, Strattman, & Scudder, 2011; Ouellette & Sénéchal, 2008; Strickland & Shanahan, 2004).

Recently, however, an emerging writing renaissance has occurred on the national agenda (Gewertz, 2012), partly due to research efforts (Graham, 2011; Graham & Hebert, 2010) and to the increased rigor in the area of writing in national and in state standards. Graham and Hebert (2010) found that writing about reading, providing instruction in writing skills, and increasing the amount of time for writing helped children with reading. These findings are further reported in more detail in Graham's (2011) meta-analysis of research in this area. The Common Core State Standards (CCSS), which were recently adopted standards (2010) by all but four states (with Texas not adopting), emphasize a strong reading and writing connection and a greater role for implicit and explicit instruction in informational text from kindergarten to Grade 12. The Texas Essential Knowledge and Skills (2009) aligns writing expectations across the grades by means of a clear delineation of the progression of skills, beginning in kindergarten, where children learn to write many of the same types of texts as their primary peers, but with teacher support. For prekindergarten teachers, who play a significant role in preparing young children for kindergarten and beyond, the rebirth of writing has key instructional implications.

Effective Writing Opportunities in Prekindergarten

The impact of the home environment as the foundation for important language and literacy skills, including emergent writing, cannot be overstated (Dickinson & Tabors, 2002). Access to books and print materials from an early age, demonstrations of functional literacy behaviors, such as writing a letter or making a list, and frequent storybook reading impact later reading and writing abilities (Vukelich & Christie, 2009).

A supportive and responsive adult references print verbally by asking and answering a child's questions about print, by pointing out letters and making comments about words in the environment, and by providing a wide variety of experiences, such as trips to museums, parks, and stores to help the child engage with the print (Hovland, Gapp, & Theis, 2011; Puranik & Lonigan, 2009; Vukelich & Christie, 2009). Through these experiences, children raised in a literate world learn why, what, and how people read and write (Bennett-Armistead, Duke, & Moses, 2005)

When the child is not raised in a literate world in his home life, which is true of many children who attend Head Start or state-funded prekindergarten programs, providing writing opportunities in high-quality programs is essential (Farver, Xu, Eppe, & Lonigan, 2006; Hammer, Miccio, & Wagstaff, 2003). Flores, Batalova, and Fix (2012) report that 90% of Hispanics across the United States are economically disadvantaged (which they define as eligible for free or reduced lunch) and further describe how poverty is one factor that has a substantial impact on educational outcomes. Many Hispanic children come from linguistically isolated homes (23%), where many of the mothers did not graduate from high school (42%), and are consequently not providing the type of academic support needed by their children to be successful in school (Ballantyne, D'Emilio, Sanderman, & McLaughlin, 2008; Beltrán, 2012). Ballantyne et al. add that children are less likely to have full access to health care services, and are less likely than other children living in poverty to attend preschool. Parental education, language barriers, and low socioeconomic status often translate into a lack of preschool program access, possibly due to a lack of awareness on the part of

parents that free, high-quality programs exist in their communities (Laosa & Ainsworth, 2007). In some cases, research reports that Hispanic children who attend high-quality preschool programs potentially benefit more than children from other backgrounds (Laosa & Ainsworth 2007). For schools serving an increasing number of linguistically and culturally diverse population, educational practices and public policies for these English Language Learners is an on-going concern (Garcia, & Frede, 2010; Gay, 2000; Keels & Raver, 2009), especially among Hispanic children whose first language is Spanish and for whom underachievement is pronounced (Tang, Dearing, & Weiss, 2010).

Added to the previously mentioned concerns are the large and growing numbers of ELL preschoolers in several states, including Texas. In 2009, for example, Texas ELL preschoolers numbered 85,000, the largest number of ELLs nationwide who were attending state-funded prekindergarten programs (Barnett, Epstein, Friedman, Sansanelli, & Hustedt, 2009; Epstein, 2010). These numbers promote the importance of planned and systematically enriched emergent literacy instruction targeted to the child's growing knowledge of the English language through daily conversations, guided participation, and language scaffolds, while continuing to support the child's home language (California Department of Education, 2009; Castro, Páez, Dickinson, & Frede, 2011, Roskos, Tabors, & Lenhart, 2009). Research has found that ELLs can achieve grade level skills, especially if they have a strong support system in prekindergarten (Garcia & Gonzalez, 2008; Waits, Campbell, Gau, Jacobs, Rex, & Hess, 2006; Restrepo

& Towle-Harmon, 2008). Specifically, instruction in reading and in writing, paired with instruction to build oral language proficiency, has clear benefits for ELLs (August & Shanahan, 2006^a, 2006^b), which can potentially be amplified with a strong parent involvement program that helps parents guide their children on these fundamental skills (Morrow, Freitag, & Gambrell, 2009; Robins & Treiman, 2009).

Support for Teaching Writing

Dickinson and Sprague (2001) contend that the quality of writing support in prekindergarten is highly related to the growth in language and literacy at the end of kindergarten and first grade. By the time children enter first grade, they need both the attitudes and knowledge about literacy that will help them be successful readers and writers (Snow, Burns, & Griffin, 1998). Cunningham (2008), who studied the quality of the classroom environment and its relationship to student attitudes, found that attitudes toward reading and writing became more positive as improvements were made to the literacy environment. Moreover, Cunningham (2008) found a strong relationship between children's literacy development and their attitudes toward reading and writing. In their research on creating quality environments that nurture young learners, Neuman, Lenhart, Roskos and Wright (2007) found that it was important to emphasize areas of the room that are designed for work and play, including the interactions that take place within those well-designed center areas. The environment has the potential to be impactful in the cognitive and social-emotional learning of young children. It encompasses objects, materials, settings, and language, which taken together jump-start a child's inquiry, innovation, and discovery and creates a place of choice and activity

that is full of reading, writing, and talking (Neuman, et al., 2007). To help children develop literacy knowledge requires time and daily opportunities to practice, places to perform their writing activities, materials with which to write, and people to demonstrate the importance of writing to them through purposeful, high-quality instruction (Cunningham & Arlington, 1994; IRA & NAEYC, 1998; Schickedanz & Casbergue, 2009; Trehearne, 2011). While these are critical components for teaching writing in early childhood education, a recent *Technical Report on Recommendations for Future Early Childhood Literacy Research* listed early writing among the identified gaps in current research studies (Abdulla-Welsh, Flaherty, & Welsh, 2009). Moreover, there has been little research that specifically focuses on how teachers use these components in their classrooms, if they do at all, especially at the prekindergarten level.

Conceptual Framework

A controversial topic in prekindergarten has long centered on whether children should learn through child-initiated and child-guided approaches or through adult-initiated and adult-guided activities. However, the landmark report by the National Research Council (2000), *Eager to Learn*, provides clarity to teachers: both approaches are needed and are beneficial to the development of a young child. The conceptual framework for this study supports purposeful and intentional teaching as the preferred method for teaching writing in prekindergarten (Epstein, 2007). Intentional teaching necessitates the teacher's active and intentional role throughout the day in every learning situation. Assel, Landry, Swank, and Gunnewig (2007) contend that the teacher's role in providing intentional instruction is paramount; stressing that drill and practice on

isolated skills is not the answer. This same message of intentionality is conveyed in the Texas Prekindergarten Guidelines (2008) with its emphasis on planned, purposeful, and playful instruction. Intentional teaching supports a child's natural desire to engage in playful experimentations with print (Duke, 2000) and also supports the child's need for guidance in strategies that do not develop on their own. Thus, planned and purposeful explicit teaching is needed for emergent writers to make connections to learn phonological awareness skills, print knowledge, and phonics; they will not be able to acquire these skills naturally, without specific instruction. Epstein (2007) contends that adult-guided instruction should be used when children are first exposed to new experiences and materials, and when they cannot create systems of knowledge on their own, such as learning letter names. Schickedanz and Casbergue (2009) explain that children need adult models for writing and writing opportunities, for enhancing phonological awareness, for interpreting children's writing, and for providing a think-aloud strategy. When linked to a social event, such as making labels for the art center, the event becomes more purposeful and playful, yet teaches key strategies authentically.

It is interesting to note that CREDE (Center for Research on Education, Diversity, and Excellence) recommended a combination of direct approaches (explicit teaching) with interactive approaches (e.g., instructional conversations, brainstorming) to teaching ELLs (Goh, Yamauchi, & Ratliffe, 2012; Hilberg, Chang, & Epaloose, 2003). Moreover, process approaches (such as free writing) were less effective with ELLs than structured approaches (focused instruction on the skills and sub-skills of writing) in the studies they investigated (Genesee, Lindholm-Leary, Saunders, & Christian, 2006).

Among the most significant strategies for supporting beginning ELLs at the kindergarten level (through second grade) are modeled and shared writing opportunities; these recommended practices are highly effective in supporting struggling readers through scaffolded instruction that focuses on print and the relationship between letters and sounds. Thus, the reciprocal relationship between reading and writing forms a bridge that helps children use what they know in reading to support writing and vice versa (Johnson & Keier, 2010).

The (2008) Report of the National Early Literacy Panel (NELP), based on an extensive review of research on early literacy development, increased attention to the need for intentional teaching of early literacy skills. The resultant movement toward scientifically-based reading research (SBRR), when applied to preschool early literacy skills, argues that children need to accomplish certain performance levels in academic areas by first grade to ensure that children successfully learn to read and write (Justice & Vukelich, 2008; NELP Report, 2008). In an effort to place their students at an advantage for later reading achievement and to reach higher performance levels, teachers often traded their more personalized methods of teaching the letters in a child's name and using those letters as a springboard for learning other words, a common early literacy strategy, for more didactic methods, such as of direct instruction, flashcards, and worksheets. Justice and Vukelich (2008) contend that using a collective approach, rather than an either/or approach, combines what we know to be valuable teaching from early literacy foundations with the more rigorous teaching of SBRR. More importantly, a combined approach is sensitive to the developmental needs of a four-year-old.

While certain strategies may convey a highly-academic image, it is more important to consider the types of dispositions for learning that these strategies are unintentionally teaching a child at a very young age (Da Ros-Voseles & Fowler-Haughey, 2007). Rather than developing characteristics of effective learners, such as independence, creativity, self-motivation, and resilience (Bertram & Pascal, 2002), some practices have the potential of weakening positive dispositions (Da Ros-Voseles & Fowler-Haughey, 2007). Justice and Vukelich (2008) further suggest that shared reading, shared writing, print-rich environments, and literacy-enriched play provide opportunities for teachable moments and when combined with carefully planned, highly engaging direct instruction, presented in short segments of five to 10 ten minutes, have the potential to bring enormous benefits to young children. Moreover, experiences that empower children, such as stapling the pages of a book together and creating a story, are likely to create dispositions for learning to read and write (Da Ros-Voseles & Fowler-Haughey, 2007).

Others describe the role of adult guidance through explicit instruction in the relationship between reading and writing, which can enhance content learning and can be a tool for accelerating learning (Anderson & Briggs, 2011; Bangert-Drowns, Hurley & Wilkinson, 2004; Graham & Perin, 2007). Explicit instruction in phonological awareness is necessary for children to learn how to use phonics knowledge (sound and symbol relationships) effectively in reading and writing (Burns, Griffin, & Snow, 1999; Strickland & Riley-Ayers, 2006; Zygouris-Coe, 2001). Exposing children to a wide variety of literary forms and promoting engagement with authentic texts, especially texts

with predictability, familiarity, supportive illustrations and visuals, will facilitate their language and literacy development, and is of particular importance to ELLs (Barone, et al., 2005). Engagement with texts, such as alphabet books and other print-salient texts, provides the opportunity for a teacher to discuss letters and letter sounds *explicitly* in a predictable and familiar context, providing ELLs with the opportunity to solidify sound-symbol association in a meaning way.

Little argument exists for child-initiated, child-guided learning in prekindergarten. However, what does exist is a tendency to remove from prekindergarten the most natural tendency for expression of learning—play. Play provides meaningful and functional contexts for teaching preschool themes and a means for children to collaborate with adults and peers in learning about that content (Bodrova & Leong, 2003; Neuman, Lenhart, Roskos, & Wright, 2007; Owocki, 1999; Strickland & Schickedanz, 2009). The advantages of play are enormous and well-documented in research, with specific suggestions for implementation in the classroom in the Texas Prekindergarten Guidelines (2008). Moreover, play scenarios in which children use writing while taking on specific roles (e.g., writing a prescription as a doctor or taking a food order as a waitress) provide opportunities for playful experimentations with print. Many school districts, however, are withdrawing play (once considered best practice) from most kindergarten programs and in some cases, from prekindergarten. As a result, the key experiences of incorporating writing through play are missing in many classrooms.

Young ELLs, like their English-only peers, when immersed in interactions with a print-rich classroom, begin to understand the forms, functions, and features of print, the foundations of learning about written language (Barone, et al., 2005). Print-rich classrooms provide a writing center, letter/word walls with words and illustrations of thematic words, environmental print matching games, and many implicit ways for ELL children to access and interact with print. However, print around the room becomes like wallpaper unless the teacher directs the student's attention to it. For a child learning English, concepts of print, such as directionality, needs to be modeled. Through experiences that gradually release the responsibility of the teacher to the students (Pearson & Gallagher, 1983), such as modeled writing, shared writing, interactive writing, and independent writing, children begin to understand differences in directionality, word boundaries, and sentence structure between their first language and English. Like their monolingual English-speaking peers, ELLs benefit from *explicit* instruction in writing (August & Shanahan, 2006; Farnan, Flood, & Lapp, 2000). The skilled teacher will gradually release responsibility to the child as he or she is ready to take on tasks with greater independence. Moreover, the skilled teacher will provide opportunities for carefully scaffolded child-guided and adult-guided learning in the child's zone of proximal development (Vygotsky, 1978) every day throughout the prekindergarten year and apply the Conditions of Learning as described by Camborne (2000) to literacy, both reading and writing.

The Context of the Present Multiple-Article Dissertation

In summary, research provides some understanding of the skills that contribute to children's earliest attempts at writing in prekindergarten, but much more is needed (Puranik & Lonigan, 2012; Puranik, Lonigan, & Kim, 2011). Tucked into the definition of early literacy, writing is often the silent partner of reading and does not receive the same level of attention as reading in research. In spite of this problem, many prekindergarten teachers have attempted to provide instruction in writing, following the recommendations of curriculum materials, school district advice, scholarly journals, or their more experienced peers. The result is a conglomeration of practices, sometimes actually defeating their own purposes by lacking sensitivity to the important dispositions of learning needed by effective readers and writers. Without the research to support best practices, teachers are mixed in their approaches to teaching writing. As a result, conventional wisdom, whether or not it is known to be effective, often guides writing practices. Because reading and writing develop concurrently and are known to support the development of the other, it is important for writing to be included as a key foundational early literacy strategy in prekindergarten. Without guidance from research on ways to implement writing in the classroom, there is concern that these foundational years are missing the mark on how to best channel children's time and efforts on their emergent literacy path that will support reading and writing.

Hence, the aim of the studies includes an examination of the practices occurring in classrooms to determine the needed direction of professional development training and coaching. Both studies included in this dissertation use secondary data collected from a

large education service center in Texas. In *Article #1* secondary data was collected from teachers during an inservice training; teachers indicated their perceptions of writing practices and frequency of teaching writing on a *Survey of Writing Practices in Prekindergarten*. *Article #2* uses secondary data collected through observations of classrooms from four educational settings: suburban, private, rural, and urban. Taken together, these studies provide a window into teacher practices, including what children write, how often they write, and what teachers do to support writing. *Article #1* is an important study for documenting the phenomena related to current assumptions that prekindergarten teachers have on writing, and *Article # 2* provides insight into three interrelated classroom components: the teacher, the student, and the environment by investigating their educational use of writing and writing artifacts.

CHAPTER II

**INVESTIGATING TEACHER PERCEPTIONS OF WRITING
OPPORTUNITIES IN PREKINDERGARTEN THROUGH A SELF-REPORT
SURVEY**

The first study examines the writing practices of prekindergarten teachers using a self-report survey. Unlike previous studies that have investigated writing in the primary grades, this is one of the few studies to investigate writing practices in prekindergarten. The most comprehensive look at writing comes from Cutler and Graham (2008), who conducted a national survey to investigate a broad range of instructional practices that occur in primary classrooms, including what students write, how often they write, and what type of instruction they receive to support their writing. While their study provides a valuable look at writing in primary grades, it is not representative of writing in prekindergarten. Neither is it sufficient for understanding the unique needs of four- and five-year-olds attending prekindergarten programs, whose writing is typically not yet conventional.

The present study uses a similar approach to the national self-report survey developed by Cutler and Graham (2008). Just as Cutler and Graham investigated current research related to writing in primary grades to develop their survey, the present study investigated practices in prekindergarten programs as they were described in peer-reviewed articles, journals, and scholarly resources. With the information from the prekindergarten resources, a new section, Part IV, was added to the Cutler and Graham

survey for use in the present study (see Appendix E). Writing instruction under investigation includes both teacher-directed techniques, such as modeled and shared writing, and providing opportunities for child-guided writing, such as organizing areas of the room, like the writing center for children to choose to make a book. Teacher-directed and child-guided strategies, when used in balance with one another, define intentional teaching, which is the conceptual model of the current study.

While not a national survey, this survey focuses on secondary data collected from a regional service center in a large area in Southeast Texas and looks solely at the practices of the prekindergarten teachers in that area to determine what types of writing instruction occurs in those classrooms. Also like the Cutler and Graham study, the present study uses a self-report survey. The primary purpose of this study is to examine the typical writing practices of prekindergarten teachers with the aim of drawing out recommendations for improving writing instruction through professional development and coaching in the classroom. The ultimate aim is to increase best practices in writing in prekindergarten programs and to provide teachers with instructional guidance that is sensitive to the dispositions for learning of their prekindergarten students.

Research Questions

The purpose of the first article is to investigate teachers' perceptions of their writing practices based on a self-report survey. The following research questions guide this study:

1. What do teachers perceive to be effective writing practices in their PK classrooms?

2. What is the frequency of perceived time on writing strategies as reported by teachers?
3. Are there significant differences ($p < .05$) in frequency of writing usage by teacher certification, years of experience or type of program?
4. Are there significant differences ($p < .05$) among writing practices by teacher certification, years of experience, or type of program?
5. Are there significant differences ($p < .05$) among teacher perceptions of writing stages of students by student groups in prekindergarten, particularly ELLs and monolingual students?

A complete discussion of the research methods, including setting, participants, and instrumentation is included in the methods section of this chapter.

Review of Research

This section of Chapter II presents a review of research and a discussion of relevant peer-reviewed literature on two topics related to the current study, teacher perceptions of instructional practices in early literacy, and writing in prekindergarten. The section begins with an overview of research prior to the year 2000, as well as the results of any relevant research syntheses that have been conducted related to the topic. Two tables, in which the researchers are presented alphabetically, include the purpose, participants/method, and significant results for each study, can be found in Appendix A and Appendix B. Appendix A, *Teacher Perceptions of Instructional Practices in Early Literacy*, addresses research in which teacher perceptions of early literacy in prekindergarten and primary grades are included, as collected through variations on

self-report studies. The Appendix B, *Research on Writing in Prekindergarten*, presents common themes in research studies on writing in prekindergarten and provides a justification for investigating writing as a topic of need in programs for young children.

Research on Teacher Perceptions

In spite of many empirical studies (such as, Lonigan, Burgess, & Anthony, 2000; Whitehurst & Lonigan, 2001) which demonstrate the importance of providing all preschoolers with the opportunity to develop and actively practice emergent literacy skills, very few studies can be found that have been specifically designed to investigate teacher perceptions of writing instruction in prekindergarten. Consequently, this section addresses related research on teacher perceptions of instructional practices in early literacy development or early reading in the primary grades. When writing was addressed in a study, specific information about writing is provided because of its relevance to the current study.

Several articles published in the 11 year period between 2001 and 2012 investigate teacher perceptions (See Appendix A). However, only one of these articles is directly related to writing in prekindergarten/kindergarten (Hovland, Gapp, & Theis, 2011) and two others address prekindergarten (Green, Peterson, & Lewis, 2006; Stellakis, 2012). Two articles concentrate on writing beyond prekindergarten (Cutler & Graham, 2008; White, 2013). Two additional articles investigate the perceptions of preservice and inservice teachers about early reading and early literacy instruction (Bos, Mather, Dickson, Podhajski, & Chard, 2001; Mather, Bos, & Babur, 2001), and two articles investigate the types of knowledge that supports early literacy development

(Cunningham, Perry, Stanovich, & Stanovich , 2004; Cunningham, Zibulsky, Stanovich & Stanovich, 2009).

The research methodology in these studies, although all related to teacher perceptions through self-report studies, varied considerably. Three studies used a perception survey along with a knowledge assessment (Bos, et al., 2001; Cunningham, et al., 2004; Mather, et al., 2001), which provided an opportunity for the researchers to compare perceptions with actual knowledge of practices. Two studies used teacher-created materials during an inservice training, a Language Arts Activity Grid (Cunningham, et al., 2009) and a concept map of early literacy practices (Stellakis, 2012), both of which were analyzed for teacher perceptions of the importance of specific practices. The Stellakis study compared the practices the teachers reported with the standards set forth by the Greek curriculum, which emphasized an emergent literacy approach to instruction rather than isolated, skill-oriented, code-breaking activities. Conducting a survey during an inservice training was another form of self-report study used by Green, et al. (2006). Green et al. found that teachers used many literacy practices on the 23-question survey; however, the frequency of usage was questionable. This is similar to the nationwide primary-grade survey conducted by Cutler and Graham (2008) who also found that 90% of the 178 primary teachers who took the survey reported using most of the writing instructional practices; however, there was considerable variability between teachers in how often they used specific practices. One self-report study employed a qualitative case study, which included a questionnaire where kindergarten teachers were asked two questions: (a) to describe what children

need to distinguish when encountering print and (b) to describe what teachers do to assist students in distinguishing the characteristics of print (Hovland, et al., 2011). The participants identified 14 teaching strategies, four of which were directed related to writing. Because of their relevance to the current study's focus on writing and to prekindergarten, those teaching strategies are listed in Appendix A. Teachers in this same case study also analyzed writing samples to describe what they felt the child understood about print. Both aspects of the study by Hovland and colleagues have the potential of revealing teacher perceptions, what they perceive to be important about print or what is valued by the teacher when analyzing a child's writing.

Taking a different approach to teacher perceptions, White (2013) examined the teacher-child relationship and its impact on a child's writing. White hypothesized that because of the challenging academic demands of writing on kindergarten and first graders and the importance of early literacy skills in shaping a child's understanding of the purpose and power of literacy, children need additional emotional support to develop the complexities of skills needed by young writers. Using a self-report measure of teacher-child relationship quality, White found that the lack of support of a positive teacher relationship, termed as teacher-child conflict, was significantly associated with children's writing quality, after accounting for grade level, initial reading status, and type of instruction. In other words, children were unable to take full advantage of learning opportunities because of this lack of relationship, which, in turn, impacted writing performance.

Taken together, the studies of teacher perceptions reveal patterns of issues that are important for consideration. According to these studies, a mismatch exists between teacher beliefs and their practices (Bos, et al., 2001); teacher actual and perceived knowledge (Cunningham, et al., 2004); teacher practices and current research and policy recommendations (Cunningham et al., 2009), especially early, systematic instruction in phonological awareness and letter-sound correspondences that have been known to improve early reading and spelling in at-risk students and students with disabilities (Mather, et al., 2001); and the types of literacy-building activities perceived to be important by teachers and the time children are engaged in those practices (Cutler & Graham, 2008; Green, et al., 2006). Moreover, in both studies of Cunningham and colleagues, teachers had a tendency to overestimate their knowledge of early literacy practices.

Although not a specific research study on teacher perceptions, Cunningham, Zibulsky, and Callahan (2009) investigated the need to build a preschool teacher's knowledge and skills essential for early literacy development, and asserted that preschool teachers need to be included in the discussion to improve early literacy practices. Like the studies with primary teachers, Cunningham and colleagues (2009) found that preschool teachers also tend to overestimate their knowledge of early literacy skills, including phonological skills, the alphabetic principle, phonics, and early reading acquisition.

Inferred by these articles is an absence of an emphasis on writing. Hovland, et al. (2011) discovered evidence of effective print-focused instruction during reading in

classrooms for preschoolers, but also found that teachers overlooked writing to support learning to look at print. In response to fill the need for more writing in primary grades, Cutler and Graham (2008) provided seven recommendations for reforming writing instruction in kindergarten through grade three (see Appendix A). With the exception of developing home-school connections, how these suggestions relate to prekindergarten classrooms have only been minimally investigated, but are certainly worthy of consideration for their applicability to prekindergarten.

Summary of the research in Appendix A. The studies summarized in Appendix A contribute to research by providing both insight into the issues that have been identified by research from self-report studies, often used to investigate teacher perceptions, and suggestions for improvement. However, there are limitations to the extent to which these recommendations can be generalized to other settings, and as a result should be scrutinized for their applicability to specific programs. Regardless, these studies provoke many questions about the types of professional development and coaching that would best serve teachers of young children, and the types of modeling, scaffolding, and adult-child interactions that would support their desire to provide effective instruction.

In their synthesis of research on methods of evaluating teacher effectiveness, Goe, Little, and Bell (2008) found that self-report surveys could be beneficial in providing information on the unique perspective of the teacher, especially regarding practices that are unobservable in the classroom, such as teacher knowledge, intentions, expectations, and beliefs. They maintain that self-report surveys are practical and

doable; they are cost-efficient and can provide large amounts of collected facts and data at one time. While certain items on a self-report measure may be colored by a teacher's desire to respond positively (Cutler & Graham, 2008), and may over-represent the actual practices that occur in classrooms (Cunningham, et al, 2008), it is also possible that the mismatches described above are actually the result of flaws or inconsistencies in self-report instruments.

The above review of research on perception studies should be taken into consideration with regard to the current study. It is possible that teachers in the current study overestimated (or even underestimated) the time spent on specific writing activities (Cunningham, et al., 2009) or may have reported literacy-building activities they perceived to be important, but not necessarily the ones they used in their classrooms (Cutler & Graham, 2008; Green, et al., 2006). However, the survey used in this current study provides insight into the types of writing instruction provided in the classroom, and provides a starting point in understanding a much larger and complex issue. Moreover, the current study builds on the research which already exists and will contribute to the overall picture of writing practices and usage in prekindergarten. A copy of the current survey, *Survey of Writing Practices in Prekindergarten*, is available in *Appendix E*.

Research Studies on Writing in Prekindergarten

In addition to an exploration of perception studies, which revealed few studies related to writing, research studies on writing in prekindergarten were investigated. This section begins with a discussion on research syntheses, meta-analyses,

conceptual/theoretical articles, peer-reviewed articles, and practical resources that provide both a research-base and practical knowledge on the topic of area of writing in prekindergarten. Following the general discussion on these contributions to the topic of writing is a presentation of the research on writing in prekindergarten that has been collected in the past 13 years (see Appendix B, *Research Studies on Writing in Prekindergarten*).

Mayer (2007), and Gunn, Simmons, and Kameenui ((2004) present comprehensive reviews of the research on young children's emerging literacy, predominantly in the 1980s and 1990s, which are helpful in understanding the types of knowledge and skill development that children are acquiring during their preschool years, as well as providing insight into how the field has changed in the past several years. Both reference the pioneer research work of Clay (1998), Sulzby (1990), and Sulzby and Teale (1985), who forged the way for the advancement of the emergent literacy theory. While Gunn et al., (2004) focus on specific aspects of emergent literacy acquisition related to print knowledge and awareness through reading and writing, Mayer (2007) focuses specifically on writing, emphasizing the teacher's importance in providing supportive instruction through both modeled writing and through motivating environments. Mayer discusses the social process of writing, that is, the manner in which children acquire an understanding of written language through environmental print, observations of adults and peers using written language for specific purposes, through their active construction of printed stories (which may not be recognizable to an adult), and through feedback from parents and teachers. Mayer's suggestions for

prekindergarten teachers include: (a) recognizing the developmental, non-linear nature of writing; (b) tailoring instruction to match the child's developmental needs; (c) providing opportunities for children to write in journals, diaries, or science logs on a daily basis; (d) scheduling time each day for modeled writing; (e) encouraging writing through access to materials and tools; and (f) locating areas of the classroom designated for writing activities. These are similar to the suggestions for supporting emergent writing made by Roskos, Christie, and Richgels (2003), who specifically mention shared writing as opposed to modeled writing, and who stress functional opportunities to engage in writing and along with play-related writing. Both Mayer (2007) and Gunn, et al. (2004) recognize and describe the interrelated nature of reading, writing, and oral language development, as well as the documented fact that writing is often excluded from the conversation.

According to more recent meta-analyses, the language and literacy achievements of young children prior to or at school entry have been described as the strongest predictors of later reading success (Duncan, 2007; Piasta & Wagner, 2010; Report of the National Early Literacy Panel, 2008). Piasta and Wagner (2010) highlight the importance of alphabet knowledge, which refers to a child's ability to recognize, name, and produce letter forms, letter names, and the corresponding letter-sound association. From the 60 studies included in their meta-analysis, they noted that while alphabet knowledge has been touted as the hallmark of early literacy instruction in prekindergarten, effect sizes were modest. They also found that effect size magnitude depended upon the focus of instruction, the setting, the types of groupings, and the

duration of the instruction (Piasta & Wagner, 2010). For example, effect sizes were larger when phonological awareness and alphabet awareness were combined. In response to their inconclusive results, however, they suggest a need for further research to determine the role of alphabet knowledge in relation to other early literacy skills. This includes how the alphabet ought to be taught to young children, a concern that mirrors the current study in relation to writing.

Added to the above meta-analyses and research syntheses are conceptual/theoretical articles, peer-reviewed articles, (Love, Burns, & Buell, 2007; Roskos, Christie, & Richgels, 2003) and helpful resources (Horn & Giacobbe, 2007; Pinnell & Fountas, 2011; Neuman, Roskos, Wright, & Lenhart, 2007; Ranweiler, 2005; Ray & Glover, 2008; Schickedanz & Casbergue, 2009) which provide guidance for teachers in enhancing their preschool environments with early literacy opportunities in writing. Love, et al. (2007) discusses how writing empowers literacy, particularly when writing is integrated into various contexts, when children are supported with strong adult-child engagement, and when home-school links focus on supporting young writers. Because engagement may be linked to readiness gains, it is important to look at it in relation to writing (Chien, Howes, Pianta, Burchinal, Ritchie, Bryant, Clifford, Early, & Barbarin, 2010). Roskos, Christie, and Richgels (2003) provide specific suggestions for incorporating writing into prekindergarten programs by encouraging children to use a variety of emergent forms of writing, including invented spelling. They also stress the importance of a well-stocked writing center, demonstrations of shared writing, and the use of functional writing opportunities that occur through everyday playful interactions

with print. Pinnell and Fountas (2011) provide specific suggestions for teaching all aspects of literacy development in prekindergarten, including a section on writing that mirrors their section on reading.

Recent research studies have been conducted to investigate specific aspects of writing development in preschool and provide recommendations for enhancing the preschool environment with writing. *Research on Writing in Prekindergarten* (Appendix B), briefly summarizes 20 studies that examine writing use in the classroom. These 20 studies, published between 2000 and 2013, represent current studies with three common themes: (a) instructional supports, such as the relationship between letter naming and name writing and implications for practice; (b) family supports, such as the importance of the home environment in developing early literacy skills; (c) environmental supports, such as those which have a mediating influence on how children interact within the school environment to support early literacy development. It is interesting to note that these same types of supports are also listed as components of POLL, Personalized Oral Language Learning, for children learning English in prekindergarten classrooms (Magruder, Hayslip, Espinosa, & Matera, 2013). Taken together, these studies present the complexities of writing, yet provide a convincing argument of the importance of writing in prekindergarten.

Instructional supports: The relationship between letter naming and name writing. One of the most common themes in research studies related to writing in prekindergarten is the importance of name writing as a predictor of later literacy knowledge, with this predictive relationship being marginally higher as children move

into kindergarten (Lonigan, Schatschneider, & Westberg, 2007). In addition to the report of the National Early Literacy Panel (2008), which mostly discusses writing in relation to name-writing, several other studies investigate this relationship (See Appendix B). Researchers in general hypothesize that name-writing attempts represent the first string of meaningful letters that children produce, a highly significant achievement considering the complexity of the task (Ferrerio & Teberosky, 1982). It is no surprise that knowledge of a child's written name emerges early as a literacy skill; parents and caregivers provide repeated exposure to a child's name from a very young age and encouragement to copy or write it (Levin, Both-De Vries, Aram & Bus, 2006; Aram, 2002; 2007; 2010; Aram & Levin, 2001; 2002). Several researchers suggest that children who have learned to write their names use this knowledge as a springboard for paying closer attention to letters and words, which leads to children recognizing other letters and words that are not in their names (Drouin & Harmon, 2009; Levin, Both-De Vries, Aram, & Bus, 2006; Justice, Pence, Bowles, & Wiggins, 2006; Molfese, Beswick, Molnar, & Jacobi-Vessels, 2006; Treiman, Cohen, Mulqueeny, Kessler, & Schechtman, 2007). While most of the studies investigate letter knowledge without regard for writing letters, a few studies have investigated the relationship between letter naming and letter writing.

Bloodgood (1999) posited that children's knowledge of their names plays an important role in early writing development, leading to expanded alphabet knowledge and a wider range of literacy skills. During the decade that followed Bloodgood's research, several studies investigated different aspects of name knowledge and the

relationship to writing. Molfese, Beswick, Molnar, and Jacobi-Vessels (2006) investigated the relations between letter-naming and word-reading and writing skills (letters, numbers, and first names) in preschool children and found that children with higher scores in letter-naming had higher scores in letter writing, with the highest scores in the area of writing found for first-name writing. The writing tasks consisted of first name-writing, writing letters to a dictation task, number writing to a dictation, letter copying, and number copying. Molfese and colleagues found that the higher scores were not depended upon the task: writing dictated letters or letters copied from a list, or writing some or all letters in their names. A later study by Molfese, Beswick, Jacobi-Vessels, Armstrong, Culver, White, Ferguson, Rudasill, and Molfese (2011) found that even in classrooms where writing centers were available and name writing activities were common, many children at mid-kindergarten did not have good name and letter knowledge. Using two scoring rubrics, the first which measured one component (letter formation) and the second which measured multiple components (letter formation, orientation on the vertical axis, left–right orientation and correct letter sequencing), they compared the differences in children’s writing of names and letters. They found that name writing and letter writing were highly correlated, but not to growth on these scores. The multiple component rubric did not yield any additional information to enhance understanding of children’s development of writing. Molfese et al., (2011) posit that when children are required to pay attention to the relationship between letters and sounds in writing, they may come closer to reflecting a significant association than they would on tasks that require copying or rote memory. Similar findings are reported by other

researchers (Diamond, Gerde, & Powell, 2008), who found that letter formation aspects of name writing overlapped with other holistic features of the child's writing repertoire.

Justice, Pence, Bowles, and Wiggins (2006) investigated the order in which children learn alphabet letters by considering four hypotheses: (a) children learn the letters in their own names before other letters; (b) children learn the letters in the beginning of the alphabet before later occurring letters in the alphabet string; (c) children learn letters which say their own name before other letters that do not; and (d) children learn letters which correspond with phoneme development. There were strong effects for the letters contained in children's own names (particularly the first initial), and more modest yet consistent effects for the other hypotheses. The researchers recommend that instruction include all of the influencing factors in letter recognition in order to prepare prekindergarten children for the rigors of instruction in the primary grades.

A similar research of four experiments was conducted by Treiman, Cohen, Mulqueeny, Kessler, and Schechtman (2007), who wanted to find out what preschoolers know about the visual characteristics of their names and words when presented to them in printed form. Approaching their research from the hypothesis that preschoolers may possess some knowledge about writing prior to formal education, their purpose was to investigate the nature and development of that knowledge. They found that children gain knowledge about writing from sources other than the print in books. Exposure at home to the spelling of their names through parent-child interactions was one major source of that knowledge.

Three studies by Puranik and her colleagues looked at different aspects of name-writing. Puranik, Lonigan, and Kim (2011) found that both letter-writing and name-writing skills contributed to the prediction of spelling, but when they were considered together, letter-writing abilities alone made a significant distinctive contribution to the prediction of spelling. The purpose of their study was to investigate if and how emergent literacy skills (alphabet knowledge, phonological awareness, print knowledge) contribute to preschool children's emergent writing skills (name-writing, letter-writing, and spelling). When given the opportunity, children learn a great deal about writing and spelling between 3- and 5-years-old, making significant gains in composing abilities (Puranik & Lonigan, & Kim, 2011). Other studies found an association between name writing proficiency and preschool children's developing emergent literacy skills, with name writing reflecting knowledge of some letters rather than the broader knowledge of letters that may be needed to support early spelling (Purnaik & Lonigan, 2012). This research supports the need for a greater emphasis on writing opportunities in the prekindergarten classroom.

Adding an interesting twist to this single, well-researched area of writing, Drouin and Harmon (2009) suggested that incongruities in the performance of young children on letter naming and name writing tasks warrant caution in assessing children's conceptual knowledge through knowledge of one's own name. They found that children with greater name-specific letter recognition, but poorer name writing scores, had significantly higher letter knowledge scores than the children with superior name writing scores (but poor name-specific letter-recognition scores). These current research studies

seem to question the commonly held assumption that name-writing reflects alphabetic skills. Name-writing seems to be related to the development of procedural skills in writing and therefore has relevance, but may have less to do with the development of conceptual skills needed to construct text (Hooper, Roberts, Nelson, Zeisel, & Fannin, 2010). It might be more significant for a child (who is learning letters in prekindergarten) to have these procedural skills at a young age. Critical predictors of later narrative writing skills, according to the research by Hooper, et al., when assessed at kindergarten entry include: core language abilities, prereading skills, and maternal education. However, to understand the role of writing in language, reading, and spelling, research needs to further investigate conceptual knowledge in writing development (Molfese, et al., 2011). For example, one of the findings from the study by Bus, et al. (2001) suggested that story writing (which involves conceptual knowledge) causes children to struggle to integrate known with newly presented facets of knowledge about writing; the researchers hypothesize that this struggle may advance children's understandings of writing. In light of the issues raised by Drouin and Harmon (2009), a refocus on conceptual knowledge in future research may be a consideration.

Family supports: The importance of the home environment in developing early literacy skills. Appendix A summarizes two studies (Aram, 2010; Aram & Levin, 2004) which consider the home environment as a factor in the child's developing early literacy skills and one article that looks specifically at the characteristics of parents that lead to writing competence in school (Dunsmuir & Blatchford, 2004). These first two studies, conducted in Israel in the Hebrew language by Aram and colleagues, take a

close look at maternal mediation (Aram & Levin, 2004), and the role of fathers (as compared with mothers) in early literacy interactions (Aram, 2010). Aram and Levin (2004) designed a longitudinal study to investigate the role of maternal writing mediation as a possible predictor of later literacy development when children were in kindergarten and again, 2½ years later, when the same children were in second grade. The researchers found that early, quality maternal writing mediation, more than background variables (such as, socioeconomic status) and literacy development in kindergarten, impacted literacy development when the children were in second grade. Quality maternal mediations, which help a child become efficient at literacy learning, included interactions that provided a clarification of rules, expansion of knowledge about the alphabetic system, and the provision of tools to cope with future literacy tasks (Aram & Levin, 2004).

Aram's (2010) study compared the parenting styles of fathers and mothers during their interactions with their children on writing activities. While both parents actively participated in leading writing interactions in the study because their children could not cope with the demands of the task independently, Aram found that mothers were more process oriented (that is, providing the time for the child to sound out a word) and fathers were more task oriented (that is, helping the child complete the task at hand). Suggestions were provided to support parent's regard for the importance of writing by supplying them with helpful methods to support writing, guiding them to be responsive to their child's literacy level, and encouraging them to share ideas on effective literacy interactions with other parents. Aram's study relates to the current study in that teachers

would also benefit from suggestions on how to best support their students in the area of writing.

Numerous preschool variables, such as mother's education, family size, parental assessment of the child's writing ability and a measure of home writing activities, were significantly associated with writing competence at school entry (Dunsmuir & Blatchford, 2004). Child characteristics significantly associated with writing at age seven were: season of birth, vocabulary score, pre-reading skills, handwriting and the child's proficiency in writing his or her name. Home writing activities were the only preschool variable still significant at the age of seven. Taken together, predictors of writing competence at school entry, as described in these studies, show the significance of writing as part of an early literacy program, both in the home and at school (Aram, 2010; Aram & Levin, 2004; Dunsmuir & Blatchford, 2004).

The mediating influence of environmental supports for early literacy development. The research studies included in this section are related to the mediating influence of environmental supports to early literacy development. The use of literacy-rich materials in the classroom environment fits neatly into this category (Clark & Kragler, 2005). Other research studies in this section relate to the manner in which the teacher mediates between the children and the environment, during activities like shared reading and shared writing (Aram & Biron, 2004) and invented spelling (Bus, Both-de Vries, deJong, Sulzby, & deJong, 2001; Levin & Aram, 2013). It could be argued that the latter are instructional strategies; however, they are included here due their mediating influence (Wayne, DiCarlo, Burts, & Benedict, 2007).

The mediating influences of specific instructional practices provide support for early literacy development. The following research includes shared reading, shared writing, and the use of literacy-rich materials in the classroom environment. Also included in this section is an investigation of specific instruction on invented spelling and its affect on writing development. The first study described in this section relates to adding literacy materials to the classroom (Clark & Kragler, 2005). The second study, which is also included in the section on observational studies (See Appendix C), takes a look at the teacher's role in mediating the environment (Wayne, DiCarlo, Burts, & Benedict, 2007).

Clark and Kragler (2005) investigated the effects of incorporating writing materials in all areas of the preschool classroom (that would provide opportunities for children to express themselves through writing), on the early literacy development of young children attending a low-income childcare center. As part of the qualitative section of their study, the researchers set up science areas in two of the classrooms as models of implementation and then demonstrated how writing could be incorporated in that particular area. Then, they asked the teachers to do similar activities in other areas of the room. Materials that the teacher added were coded as: (a) print displayed by the teacher, (b) activities directed by the teacher, and (c) activities explored by the children, either self-selected or selected by the teacher. Differences between classrooms were found in the level of implementation of the use of materials and willingness on the part of the teachers to incorporate the suggested interventions in their classrooms; the researchers saw the lack of wholehearted implementation as a barrier. Significant

changes in the types of writing produced by children in each room were noted. Although no differences were found on their post tests at the end of prekindergarten, it would be interesting to find if these differences impacted the children in their kindergarten year, or if differences would be noted as teachers became acclimated to the expectation of making changing in their rooms.

Aram and Biron (2004) explored and compared two commonly employed early literacy interventions of preschoolers to discover which ones would to equip them for reading and writing acquisition at entrance to formal schooling: general competencies via joint storybook reading and linked activities and alphabet skills via joint writing. Results indicated that children in the two literacy programs progressed significantly more than the control group on phonological awareness and orthographic awareness, but the writing group significantly outperformed both the joint reading group and the control group on phonological awareness, word writing, orthographic awareness, and letter knowledge. This study suggests that writing is an area that warrants further investigation. An additional interesting finding was that younger children (aged 3–4 years) gained from literacy programs as much older children (aged 4–5), on all the assessed measures, suggesting that children may be motivated to learn to read and write from a young age, in spite of common efforts to shield children from writing skills until they are in their primary grades.

Invented spelling. Research in the 1970s and 1980s suggests that temporary or invented spelling contributes to reading and writing because it encourages children to actively think about the relationship between letters and sounds as they decode words to

read or encode words to write (Chomsky, 1976; Clarke, 1988). Roskos, Christie, and Richgels (2003) emphasize that invented spelling develops before phonemic awareness is fully developed in children and even before they have full knowledge of all of the letters of the alphabet. Moreover, it invites children to focus on the power of the written message, the conceptual aspects of writing (the story), rather than on its grammatical correctness, which prekindergarten children can learn later as they progress through the primary years, culminating in conventional spelling.

Appendix B refers to two case studies that were used as the method to investigate if young children use previous knowledge of writing when composing written text (Bus, Both deVries, deJong, Sulzy and deJong, 2001). Bus and colleagues wondered if children use this previous knowledge or if they replace it with invented spelling, particularly when specific instruction is provided. Findings suggest that children develop writing through a process of integration of components of writing in their repertoires, the older with the newer, rather than by replacement of one aspect with another. This is an important finding in that it places greater value on the earlier stages of writing, such as drawing, scribbling, and letter-like forms, which children use as they create their own stories, and which according to this study have value for the child even after the child is able to use invented spelling and until the sound-symbol association is well-integrated.

Levin and Aram (2013) investigated invented spelling as one of the early literacy mediating routines in a low SES kindergarten classroom to determine how it promotes early literacy. Levin and Aram were concerned that previous literature ignores the

process by which children learn invented spelling. Therefore, they developed a process-product mediation where the child employed the following processes with magnetic letters: segment a word into sounds, connect the sound with a letter name, select the appropriate letters, and line them up in a row to form a word. Then the experimenter taught the correct spelling of the word, removed the letters, and asked the child to spell the word again. In the product method, the child invented the spelling of a word, and the experimenter selected, named and placed the letters in a row to spell the word, and then removed the letters and asked the child to spell the word again. The process group and the product group were compared with two control groups, a no mediation group, and a no-intervention group. Results showed that the process-product method that involves the process of grapheme to sound mappings combined with the product of creating the correctly formed word produced the greatest literacy gains. This study suggests that how the teacher presents an intervention, one that supports intentional teaching, is likely to reap the most benefit.

Multi-modal symbolic systems.. A final set of three studies investigated writing as one of many multi-modal symbolic systems (Levin & Bus, 2003; Kendrick & McKay, 2004; Kim, 2011). All three explored how young children, engaged in the meaning-making process, use drawings and other semiotic tools as multimodal mediators (movement, talk, drawing, art, dance, music, drama, storytelling, construction and mathematics) for representing experience, feeling and knowledge. These studies were interesting in that they explored how writing, like many other modes of expression in a preschool classroom, is a natural process for children to use to make meaning (Kim,

2011). Kendrick and McKay (2004) reported that an understanding of children's complex language and literacy knowledge can be enhanced through visual representations. They were interested in exploring how drawing affords opportunities for young children to explore their perceptions and understandings of literacy, as well as communicate their literacy knowledge and experience. The authors reported that children were able to show the full range of their experiences, including sensory representations, the way they see themselves as readers and writers, and their feelings and attitudes.

Because teachers often express a desire to understand more about the role of drawing in writing, this is an important topic for investigation. Levin and Bus (2003) found that before children can write conventionally, they communicate meaning through drawings-like devices: they draw print and then progress to drawing that becomes more writing-like. Calkins (2003) in her body of work on the Writer's Workshop for children in the primary grades suggests that drawings alone will not help the child represent meaning, unless there is a story (which she calls a small moment) behind the drawing. Rather than draw a picture and write about it, Calkins suggests that children think of something important to them and then sketch a picture of it. As they add details to their drawing, they construct more meaning, just as they will later add details to their writing. Others who have studied Writer's Workshop in the primary grades provide additional suggestions for encouraging children to write (Corgill, 2008; Craig, 2006; Fletcher & Portalupi, 2001; Gentry, 2006; Horn & Giacobbe, 2007; Jacobson, 2010; Meier, 2013). Like

Calkins (2003), Horn and Giacobbe (2007) emphasize storytelling and sketching to help young writers in the primary grades observe with care and then write with greater detail.

Summary of Current Research on Writing in Prekindergarten

The review of research presented in this chapter included a discussion on previously conducted self-report surveys to analyze teacher perceptions on various topics, as well as an overview of current research on writing in prekindergarten. This research is in addition to studies that were conducted prior to the year 2000. Taken together, a foundation for writing use in prekindergarten exists, but remains an area of need in research, due to the complexity of writing and the many facets of writing that need to be investigated in order to provide a clearer picture of how to support young learners in this multifaceted process.

The three major areas of investigation in this section supported by research on writing in prekindergarten included: (a) instructional supports, (b) family supports, and (c) environmental supports. First, name-writing, which receives a good deal of attention in prekindergarten, is well-researched and documented as a significant instructional strategy for four-year-olds (Drouin & Harmon, 2009; Levin, et al., 2005; Justice, et al., 2006; Molfese, et al., 2006; Treiman, et al., 2007). It appears that in the area of that name-writing an accumulation of research has been sufficiently established. However, there is much more to writing than writing one's name, and these remaining areas are sparsely researched. As a result, teaching practices are not founded on a strong research base, and as a result, policy makers cannot adequately make recommendations for teachers in the area of writing. Second, family supports for writing or home writing

were significant both at school entry and remained significant at age seven (Aram & Levin, 2004; Dusmuir & Blatchford, 2004). Research on family supports suggests that teachers provide guidance for families on effective ways to help their children at home. Third, environmental supports highlight the importance of activities with a mediating influence on young writers, such as shared and interactive writing (Aram & Biron, 2004), invented spelling (Bus, et al., 2001; Levin & Aram, 2013), and a well-designed classroom environment (Clark & Kragler, 2005). Together with drawing as one of several multi-model systems that children use for making meaning (Levin & Bus, 2003; Kendrick & McKay, 2004; Kim, 2011), these environmental supports are key factors in creating a writing-rich classroom.

The research that does exist supports the importance of writing in prekindergarten. There is little argument that writing has a key role, along with reading, in supporting children along their early literacy journey. A rigorous research base on the specific strategies that teachers need to know in order to build a foundation of effective writing practices in prekindergarten is needed, but the research presented here is an important beginning.

Methods

This section discusses the methodology used in Article #1. The setting, participants, and instrumentation are discussed first, followed by the data analysis.

Setting

Investigating Teacher Perceptions of Writing Opportunities in Prekindergarten through a Self-report Survey uses secondary data collected from a larger evaluation that

focused on teacher perceptions of writing practices. Training entitled, “Ready to Write in Prekindergarten,” was offered at a large education service center in southeast Texas during the month of December 2012. The 90 participants in attendance were asked to complete a 25-minute survey. Because the survey was designed for teachers and some of the participants in attendance were administrators, literacy coaches, or paraprofessionals, only 75 participants completed the majority of the survey.

Participants

Demographic data on the 75 participating teachers included: age range of participants, years of experience in education, highest educational level, where the participants were currently teaching, gender, ethnicity, and their perception of their preparation for teaching writing. The largest number of participants who responded to the survey were in the age range of 40 to 49 years of age (19) and the smallest number of participants was shared by the 18 to 25 range and the 60+ range (3 in each category). Figure 1 shows the age range of the participants, including those not previously mentioned.

The largest number of participants had been teaching 6 to 10 years (22). The smallest number of participants had been teaching for 40+ years (1). Fifteen teachers had been teaching for 0 to 5 years, 19 had been teaching 11 to 19 years, 14 had been teaching 20 to 29 years, and three had been teaching 30 to 39 years. One person did not complete section of the survey.

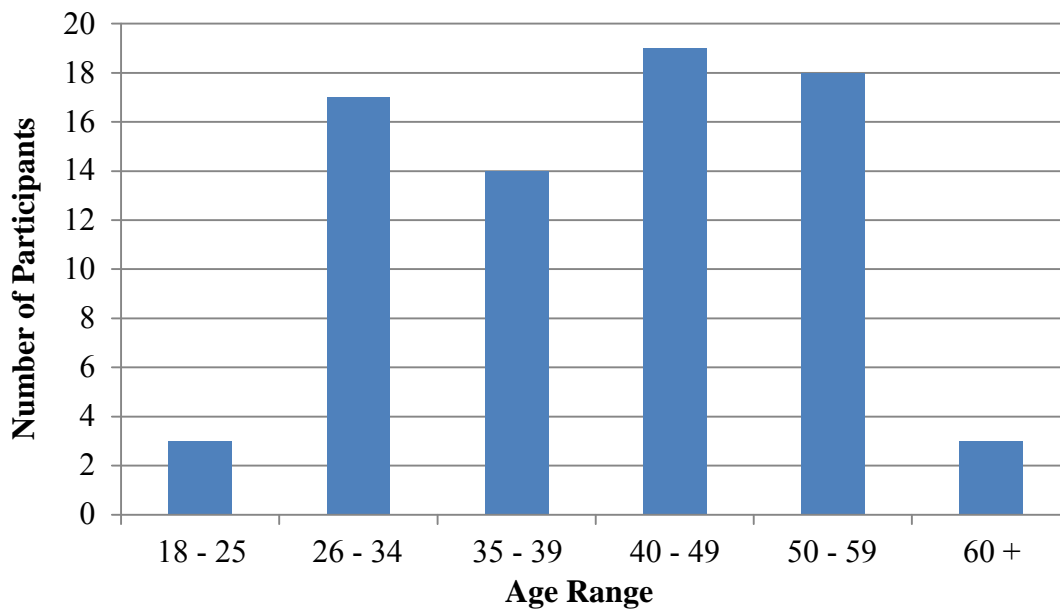


Figure 1. Age range of participants.

On the category of highest educational level, the majority of teachers (29) indicated that they had received a four-year/baccalaureate plus alternative certification. A total of two teachers recorded high school, child-care license and two-year degree/associate as their highest educational level. The pie graph in *Figure 2* shows the highest educational level of the 75 participants.

Of the 75 survey respondents, 65 taught at prekindergarten programs in public schools. The remaining nine respondents taught at charter schools/Head Start Programs (4), private schools (3), and child care/ day care centers (2). Two of the respondents did not reply to this particular question. Of the four respondents who indicated they worked in Head Start programs, two also marked public schools for this question.

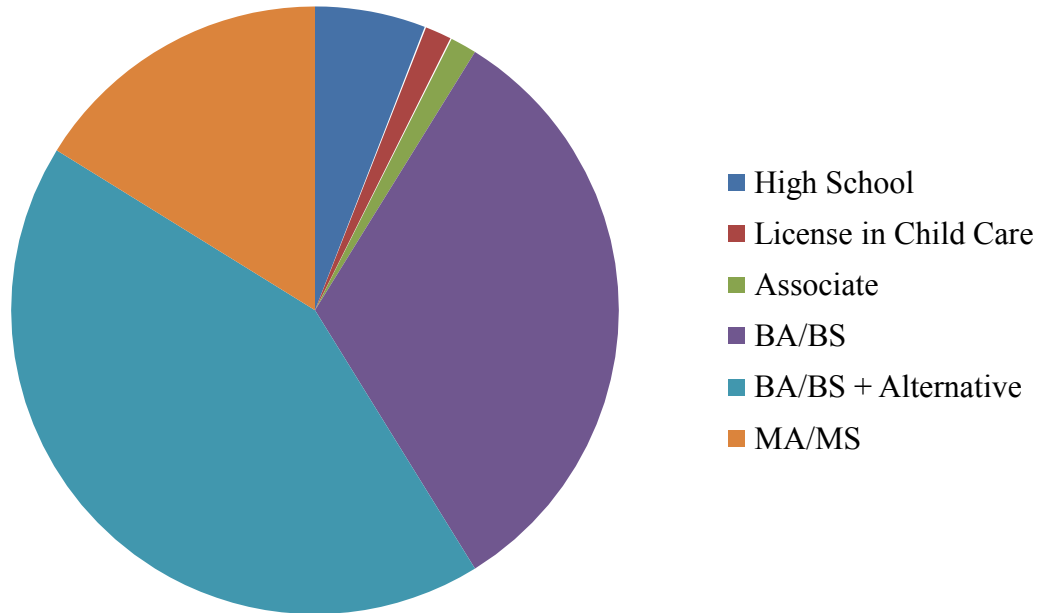


Figure 2. Educational level of participants.

All 75 participants, with the exception of one participant who left this question blank, were female. Although there were males present in the session, none of them participated in completing the survey. It is possible that some were administrators, since none of the administrators completed the survey (because it asked for classroom teacher information). It is also possible that they were among the participants who simply chose not to participate in the survey.

The next section of the survey asked the participants about their ethnicity. Thirty- six of the participants responded that were Caucasian, 26 were Hispanic, and 6 were African American/Black. Three of the participants were Asian, 1 was a Native American, 2 responded to other, and 1 person did not reply. Two of the participants

marked more than one category of ethnicity. The pie graph in *Figure 3* shows the ethnicity of the participants.

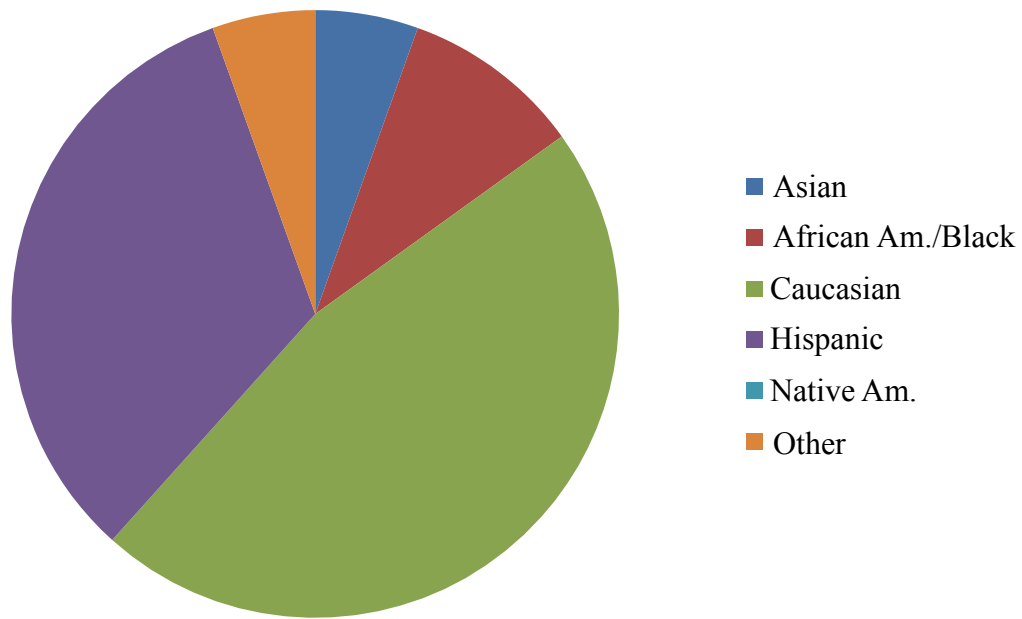


Figure 3. Ethnicity of participants.

The last section of Part I of the survey asked the teachers to indicate the quality of their teacher preparation for writing. Forty-one of the 75 participants responded that their teacher preparation for writing had been of average quality. Twenty-seven indicated that they had received high-quality preparation for teaching writing and four indicated low-quality preparation. Two participants did not reply to this question.

A related question in Part III of the survey asked the participants to indicate if they had received professional development to learn how to teach writing effectively in prekindergarten. Of the 75 participants, 57 indicated that they had received professional

development, while 17 indicated that they had not received any professional development. Some of the participants who indicated “yes” also wrote “today” or “This training is the first” on their surveys. Because of these inconsistent responses, there is some uncertainty as to how many of the participants were actually attending their first training on writing practices and how many had attended other trainings of a similar nature.

Survey Instrument

Teachers in this self-report study completed a survey, *A Survey of Writing Opportunities in Prekindergarten* (See Appendix E). Seven nominal questions were provided in the *Part I*. Ten additional questions in *Part II* investigated information about the children in the class, including the grade taught in the past year, the current grade(s) taught, the number of children in the past and present class, how many receive free or reduced lunch, and ethnic breakdown of the students. A number count of children who receive special education services and a number count of ELLs were asked of the teachers. Teachers were then asked to assess the progress of their ELL students in the area of writing and to rate all of their students on their current stage of writing achievement, the combination of which totaled the number of students in the class. *Part III* included six questions to provide information on attitudes and feelings about writing.

Part IV asked a total of 55 questions about the students’ participation and use of writing activities. In this section, participants rated on a scale from five to one (almost always, often, sometimes, rarely, or almost never) their perceptions of how often

students participate in particular activities. The purpose of this section was to determine the types of writing activities that typically occur in the prekindergarten classroom. An answer of *Almost Always* indicated that the children participate in this activity daily or many times a day. An answer of *Often* indicated that children participate in this activity weekly or many times a week. When the answer of *Sometimes* was chosen, it indicated that children participate in this activity monthly or every other month. The answer of *Rarely* indicated that children participate in this activity a few times a year. *Almost Never* indicated that the children participated in this activity once a year, if at all. Teachers rated how often they use a particular practice on 55 items as almost always, often, sometimes, rarely, or almost never.

Part V included six questions to determine how many minutes per week children write on their own, receive whole group, small group, or individual instruction in writing, and how many minutes per week the teacher spends teaching modeled, shared, or interactive writing. Question seven in this section listed several writing activities; the teachers checked which ones they used in their classrooms during the year. The section continued with a summary of writing practices, adapted from Cutler and Graham (2008). Since the Cutler and Graham survey was developed for primary teachers, some of the questions were not included because they were not age appropriate, according to the recommendations for prekindergarten writing by Pinnell and Fountas (2011).

Factor analysis. Of the five parts of the survey instrument, two parts—*Part IV* and *Part V*—underwent factor analyses to reduce the complexity of the data sets.

Factor analysis for Part IV. A factor analysis was conducted with the 55 items from Part IV of the survey. The results indicated that there were 15 factors with Eigenvalues greater than one (>1) that accounted for 76% of the variance. However, when examining the rotated component matrix, none of the factors could be adequately interpreted. Consequently, a second factor analysis was conducted with the 13 key items from Part IV of the survey, which excluded the use of the sub-questions (e.g., 1a, 1b, 1c...). The results indicated that there were four factors with Eigenvalues greater than one (>1) that accounted for 60% of the variance; these results are reported in Table 1.

Table 1. *Part IV* factor analysis results and total variance explained.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Var.	Cum. %	Total	% of Var.	Cum. %	Total	% of Var.	Cum. %
1	3.23	24.82	24.82	3.23	24.82	24.81	2.32	17.84	17.84
2	2.02	15.51	40.32	2.02	15.51	40.32	2.07	15.91	33.75
3	1.36	10.48	50.80	1.36	10.48	50.80	1.82	13.99	47.74
4	1.26	9.65	60.45	1.26	9.65	60.45	1.65	12.71	60.45
5	.93	7.14	67.59						
6	.88	6.74	74.33						
7	.72	5.55	79.88						
8	.57	4.38	84.26						
9	.51	3.90	88.16						
10	.49	3.77	91.94						
11	.41	3.14	95.07						
12	.39	2.97	98.04						
13	.25	1.96	100.00						

Note. Extraction Method: Principal Component Analysis.

After examining the reliability of the factors with Eigenvalues greater than one (>1) from the previous table, Factor 1 and Factor 2 had adequate reliability (Factor 1, Cronbach's alpha =.69; Factor 2, Cronbach's alpha=.66). However, Factor 3 had a low reliability, and Factor 4 had only one item, so reliability could not be calculated for that factor. Therefore, only Factor 1 and Factor 2 were used for the remaining analyses.

The first factor, consisting of items 2, 3, 4, 5, and 11, was identified as *writing stages*. In each of these survey questions, one or more stages of writing are referenced, including the child's use of scribbling, drawing, letter strings, letter-like forms, or actual letters.

The second factor, consisting of items 7, 8, 9, and 10, was identified as *writing strategies*. The survey questions referenced the child's involvement in creating pages for class books, including a digital book using technology, a book using writing or reading boxes as a prompt, and sharing personal writing through Author's chair. The first two factors, the rotated factor patterns, are reported in Table 2, the Rotated Component Matrix. The remainders of the ANOVAs are reported in the Results Section, under the title of Adjusted Results.

Table 2. Rotated component matrix.

	Component			
	1	2	3	4
Part IV_1	.061	.134	.157	.879
Part IV_2	.663	.004	.235	.335
Part IV_3	.585	.359	-.222	.228
Part IV_4	.831	.077	.010	-.234
Part IV_5	.546	-.415	.332	-.130
Part IV_6	.197	-.200	.568	.175
Part IV_7	.442	.476	.110	.337
Part IV_8	-.013	.688	-.086	-.254
Part IV_9	.156	.698	-.050	.410
Part IV_10	.063	.679	.364	.127
Part IV_11	.520	.086	.436	.127
Part IV_12	-.014	.087	.682	.103
Part IV_13	.101	.202	.669	-.473

Note. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in seven iterations.

Factor analysis for Part V. A factor analysis was conducted with the 35 items from *Part V*. The results indicated that there were 10 factors with Eigenvalues greater than one (>1) that accounted for 74% of the variance. However, when examining the rotated component matrix, none of the factors could be adequately interpreted.

Consequently, a second factor analysis was conducted using the eight scales created by Cutler and Graham (2008) for use in their national survey with primary teachers (see Table 12, *Categories of Writing by Percentage*, which previously reported these items and percentages). A target variable was created from each of the eight scales, reliability was determined, and ANOVA was conducted to determine any significant differences in these scales. Factor 1, entitled *Support Student Writing*, included seven items from the survey: 9, 10, 11, 15, 16, 29, and 30 (Cronbach's alpha = .75). Factor 2, *Teach Basic Writing Skills*, included five items: 17, 18, 19, 20, and 21 (Cronbach's alpha = .83). Factor 3, *Teach Writing Process*, included three items: 13, 14, and 23 (Cronbach's alpha = .85). Factor 4, *General Instructional Procedures*, included three items, reduced from five: 22, 25, and 28 (Cronbach's alpha = .73). Factor 5, *Promoting Motivation for Writing*, included four items: 8, 12, 24, and 27 (Cronbach's alpha = .61). Factor 6, *Assessment*, included three items, reduced from four: 31, 32, and 33 (Cronbach's alpha = .71). Factor 7, *Home Environment*, included four items: 26, 35, 36, and 37 (Cronbach's alpha = .82). Factor 8, *Extend Writing to Content Areas*, included three items: 40, 41, and 42 (Cronbach's alpha = .67). The adjusted ANOVAs for Part V are included in the Results Section, under the heading of Adjusted Results for Part V.

Procedures

To ensure the survey was understandable and easy to complete, a group of three prekindergarten teachers from a private school were asked to complete the survey. As a result, modifications were made to the survey. A second round of modifications came after three education specialists with expertise in the area of ELLs, prekindergarten, or

writing edited the survey. The survey was then administered by service center education specialists for their educational purposes and this study uses it as secondary data.

Data Analysis

Variables from the survey data (including, demographics, writing usage, writing frequency, etc.) were coded and electronically entered for analysis using Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics were calculated and reported to answer questions about the types of writing teachers and students were using in their classrooms.

The research methodology for the first article is summarized in Table 3 and includes research questions, data sources and instruments, and data analysis. Following is a detailed description of the table's contents.

Research Question One

What do teachers perceive to be effective writing practices in their PK classrooms? To determine the types of writing activities that typically occur in the prekindergarten classroom as perceived by the participants, responses on Part IV were used to analyze the results of this question. In this section teachers were asked to choose from five categories to describe the frequency that students participate in certain writing behaviors that could potentially occur in the prekindergarten classroom: *Almost Always*, *Often*, *Sometimes*, *Rarely*, or *Almost Never*. Descriptive statistics were reported, including percentages of responses in specific categories and identifying patterns where they exist.

Table 3. Research methodology.

Research Questions	Data Sources and Instruments	Data Analysis
1. What do teachers perceive to be effective writing practices in their PK classrooms?	Prekindergarten Teachers, Responses on <i>Survey of Writing Practices in Prekindergarten</i> (Adapted from Cutler & Graham, 2008)	Descriptive statistics analyzing the amount of times (out of 55 times) teachers mark almost always, often, sometimes, rarely, or never on their surveys in Part IV; recording percentages and noting patterns of responses
2. What is the frequency of perceived time on writing strategies as reported by teachers?	Prekindergarten Teachers, Responses on <i>Survey of Writing Practices in Prekindergarten</i> (Adapted from Cutler & Graham, 2008)	Recording percentages of responses on 33 Liker-type items (never (1), several times a year (2), monthly (3), several times a month), weekly (5), several times a week (6), daily (7), and several times a day (8); and three items where teachers answers ranged on a scale of never, half of the time, or always on Part V of the survey
3. Are there significant differences ($p < .05$) in frequency of writing usage by teacher certification, years of experience, or type of program?	Prekindergarten Teachers, Responses on <i>Survey of Writing Practices in Prekindergarten</i> (Adapted from Cutler & Graham, 2008)	One-way MANOVA
4. Are there significant differences ($p < .05$) among writing practices by teacher certification, years of experiences, or type of program?	Prekindergarten Teachers, Responses on <i>Survey of Writing Practices in Prekindergarten</i> (Adapted from Cutler & Graham, 2008)	One-way MANOVA
5. Are there significant differences ($p < .05$) among teacher perceptions of writing stages of students by student groups in prekindergarten, particularly ELLs and monolingual students?	Prekindergarten Teachers, Responses on <i>Survey of Writing Practices in Prekindergarten</i> (Adapted from Cutler & Graham, 2008)	Descriptive Statistics Teachers rate the stage of writing of their students on a scale of five (most advanced to one (beginning))

Research Question Two

What is the frequency of perceived time on writing strategies as reported by teachers? Four different sections from Part V of the survey were used to analyze responses to this question. In the first section, teachers stated how many minutes their children spend on writing on their own, which helped to determine the length of time they perceive to be important for children to spend on independent writing in prekindergarten. As such, the number of minutes spent of writing was reported to answer this question. On the second section, teachers indicated how much of their guided instruction in writing (using modeled, shared, or interactive writing) involved whole group or small group instruction. The third section (question 15) taken from Part V of the survey provided information on 15 writing activities in which children could potentially participate during their prekindergarten year and the percentage of teachers who reported that their students would participate in that activity. Any additional responses added by the participants were also described. The fourth and largest section of Part V asked teachers to circle how often a practice occurs in their classrooms. Descriptive statistics were reported, including percentages of responses on 32 8-point Likert-type items and three items using a range of responses from never, to half of the time, to always. The 32 questions were marked: (never (1), several times a year (2), monthly (3), several times a month (4), weekly (5), several times a week (6), daily (7), and several times a day (8). The remaining three questions were recorded in the following manner: never corresponded with never; half of the time corresponded with several times a month; and always corresponded with several times a day.

Research Question Three

Are there significant differences ($p < .05$) in frequency of writing usage by teacher certification, years of experience or type of program? To evaluate the effects of multiple independent variables (teacher certification, years of experience, or type of program) on multiple dependent variables from Part V of the survey: support student writing; teach basic writing skills; teach writing process; general instructional procedures; promote motivation; assessment; home environment; extend writing to content areas, a multivariate analysis of variance (MANOVA) was used to analyze the results of this question. This question employs the same categories used by Cutler and Graham (2008) in their national survey.

Research Question Four

Are there significant differences ($p < .05$) among writing practices by teacher certification, years of experience, or type of program? To examine the effects of multiple independent variables (teacher certification, years of experience, or type of program) on multiple dependent variables (five subparts of Part IV of the survey: child-initiated writing, copying from a model or writing from memory, using digital tools, teacher guided writing, home extensions), an analysis of variance (ANOVA) was used to analyze the results of each section of this question.

Research Question Five

Are there significant differences ($p < .05$) among writing usage (including any writing activity the students will do during their prekindergarten year) by student groups in prekindergarten, particularly ELLs and monolingual students? To evaluate the effects

of two independent variables (ELLs and monolingual students) on multiple dependent variables (10 of 15 of the most frequently used items from question seven of Part V of the survey (to be determined), an analysis of variance (ANOVA) was used to analyze the results of this question.

A second part of this question investigates teacher perceptions of writing stages by student groups from Part II of the survey (question 9). Teachers assessed the overall writing achievement of their students and wrote the number of students who fit within each stage of writing. Descriptive Statistics report the students' stages of writing in classrooms; the combined number of students listed under each stage equaled the number of students in that classroom. To examine the effects of two independent variables (ELLs and monolingual students) on multiple dependent variables (number of students in stages one, two, three, four, and five), an analysis of variance (ANOVA) was used to analyze the results of this question.

Results

The results of the six research questions posed in Article #1, which investigates teacher perceptions of writing practices in prekindergarten are reported in this section. The first two questions addressed the activities and frequency of time spent on activities related to writing, as reported by the teachers. The third, fourth, and fifth questions examined differences among use by multiple analyses of variation. The final question, question six, addressed differences among ELL and monolingual classrooms.

Results Related to Teacher Perceptions of Effective Writing Practices

Two questions from Article #1 addressed teacher perceptions of writing activities in the prekindergarten classroom. The first question, to determine the types of writing practices that teachers felt were effective in prekindergarten, explored how the teachers rated students' use of writing, including how they participate in, practice, and show an understanding of writing. The second question investigated how often teachers provided writing opportunities in their classrooms.

Research question one. In the first question, teachers were asked to choose from five categories to describe the frequency that students participate in certain writing behaviors that could potentially occur in the prekindergarten classroom. Because the teacher generally chooses the activities in which the students will participate and the amount of time spent on those activities, it is assumed that the activities the teachers choose are those which they perceive to be most effective. To answer this question, descriptive statistics were analyzed to determine the amount of times (out of 55 items) teachers marked almost always, often, sometimes, rarely, or never on their surveys in Part IV. Table 4 presents the results of the descriptive statistics from teacher responses on Part IV, including the means and standard deviations for each of the 55 items in Part IV of *Survey of Writing Practices in Prekindergarten*.

Taken as a whole, a small number (9%) of the writing behaviors listed occurred in the classroom *Almost Always*, that is, daily or many times a day. The five behaviors, listed in order of their frequency, that teachers indicated occurred in their classrooms

Almost Always included the following: (1) students write (with some success) the letters in his or her first name, though they may not be well-formed and may omit letters ($M = 4.57$); (2) students participate in copying letters or shapes (O, +, X) using a variety of writing tools, such as markers, crayons, and pencils ($M = 4.53$); (3) students sign his/her name on sign-in sheets, art work, graphs, letters, lists, etc. ($M = 4.28$); (4) students participate in a Morning Message, where students share the date and plans for the day ($M = 4.27$); and (5) students write their names from memory on center waiting lists and art work ($M = 4.12$).

Of equal interest are the items in Part IV in which students *Almost Never* participate according to their teachers' perceptions, that is, once a year, if at all. Nineteen items (35%) were checked by more than 15 participants (20%) as occurring *Almost Never*; seven of those 19 items were checked by more than 30 participants (40%). The item checked by the most participants as occurring *Almost Never* stated that students take home a birthday journal on his/her birthday to write about birthday events ($M = 1.50$). This item was included in a section about the students' participation in writing activities in the home that are an extension of classroom activities ($M = 2.74$). All of the items in this section were consistently rated as occurring *Almost Never*. They included: (a) students take home class-made books from the classroom library to share with family members; family members write a response in the back of the book ($M=2.08$); (b) students take home a packet of writing tools and paper to write about a favorite family activity ($M = 1.94$); (c) students take home books from the class or

school library in the child's native language; child draws favorite character or dictates a favorite part of the story to family members ($M = 2.30$).

Questions on writing and technology were consistently rated as occurring *Almost Never*. They included: (a) student explores digital tools to produce drawings or writing, such as using a finger to draw a picture on an iPad or touch screen ($M = 2.23$); (b) student produces a page from a program where the child selects the scene and then stamps characters on the page and then tells a story about his or her creation ($M = 2.0$). Two other questions were also rated as *Almost Never*. They were: drawing thinking/speech bubbles to show the characters in the story are thinking or talking ($M = 1.81$) and revisiting a writing box for the purpose of creating a new mini-book or to investigate the props in a new way ($M = 1.92$).

Research question two. The second research question addressed the frequency of time that teachers perceive that they spend on writing strategies. In Part V of the Survey, four different sections were investigated to answer this question. In the first section, teachers were asked to state how many minutes their children spend on writing on their own, which would help to determine the length of time they perceived to be important for children to spend on independent writing in prekindergarten. On the second section, teachers indicated how much of their instruction in writing (using modeled, shared, or interactive writing) involved whole group or small group instruction. The third section (question 15) taken from Part V of the survey provides information on 15 writing activities in which children could potentially participate during their prekindergarten year and the percentage of teachers who reported that their

students would participate in that activity. The fourth and largest section reports the descriptive statistics on 33 Likert-type items (never (1), several times a year (2), monthly (3), several times a month (4), weekly (5), several times a week (6), daily (7), and several times a day (8); and three items where teachers answers ranged on a scale of never, half of the time, or always on Part V of the survey.

Table 4. Mean percentage values of writing activities use.

Writing Activities Use	<i>n</i>	<i>M</i>	<i>SD</i>
Writes Letters in First Name	70	4.57	.67
Copies Letters or Shapes	74	4.53	.60
Signs Name on Sign-in Sheets / Art Work	74	4.28	.90
Participates in Morning Message	74	4.27	1.01
Writes Name from Memory	74	4.12	.89
Participates in Shared or Interactive Writing	67	3.93	.86
Copies Letters from Food Labels	74	3.92	.90
Participates in Daily News	74	3.92	1.09
Uses Drawing/Writing to Tell a Story	72	3.92	.83
Scribbles List	75	3.76	.75
Scribbles or Makes Letter-like Shapes	74	3.72	.75
Talks about Favorite Book	74	3.54	1.05
Participates in Writing Mini-lesson	74	3.51	1.10
Participates in Mini-lessons	71	3.45	1.24
Imitates Dramatic Play Roles	74	3.45	1.06
Labels Picture with Letters or Mock Letters	74	3.43	1.01
Forms Letters in Sensory Materials	75	3.43	1.03
Generates List of Content-related Vocabulary	72	3.35	1.20
“Writes” the Room	74	3.31	1.16
Expresses Desire to Share	75	3.24	1.10
Shares Writing with Teacher	74	3.23	1.19
Responds to Question of the Day	73	3.22	1.15
Writes w/ Dramatic Play	72	3.14	1.07
Uses Writing to Communicate with Others	74	3.08	.99

Table 4. Continued.

Writing Activities Use	<i>n</i>	<i>M</i>	<i>SD</i>
Creates Page for Class Book	68	3.03	.99
Creates Graphic Organizer	71	3.03	1.10
Makes a Wish List	74	3.00	.98
Draws/Writes about Class Trip	73	3.00	1.31
Responds to Questions from Peers about Writing	74	3.00	1.03
Dictates Story/Says, “The End”	75	2.92	1.24
Labels Block Structures	74	2.91	1.09
Writes Letter to Classroom Guest and Signs Name	74	2.91	.98
Uses Functional Print in Play	74	2.85	1.13
Participates in Writing a Letter to a Story Character	73	2.79	1.26
Generates List of Thematic Learning Center Materials	72	2.79	1.19
Creates Page about Family Member/Pet	74	2.76	1.11
Participates in Extension Writing Activities at Home	66	2.74	1.26
Creates Page for ABC Book	73	2.71	1.03
Spells Friend’s Name with Letter Cubes/Copies	74	2.64	1.05
Participates in Author’s Chair	73	2.59	1.13
Creates Page for Informational Text	73	2.53	.85
Participates in Conference	74	2.46	1.14
Writes Simple Sentence	74	2.45	1.05
Uses Message Board	72	2.40	1.02
Types Name on Keyboard	73	2.38	1.25
Takes Home Books in Native Language	72	2.31	1.42
Uses Digital Tool for Writing	69	2.23	1.35
Uses Writing Boxes	69	2.20	1.15
Takes Home Class Books	72	2.08	1.32
Imitates the Use of a Writing Box	74	2.00	1.03
Uses a Stamping Program	74	2.00	1.01
Takes Home Writing Tools and Paper	72	1.94	1.12
Revisits Same Writing Box to Use in a New Way	72	1.92	.96
Uses Speech Bubbles	74	1.81	.85
Takes Home Birthday Journal	74	1.50	.80

Note. 1 = almost never, 2 = rarely, and 3 = sometimes, 4 = often, and 5 = almost always; *n* = 66-75.

In the first section, teachers were asked to state how many minutes their children spend on writing on their own, which would help to determine the length of time they perceived to be important for children to spend on independent writing in prekindergarten. Table 5 shows how the answers to this question varied considerably by participants ($M = 65.4$). A closer investigation in Figure 4, as depicted in the frequencies represented by the bar chart, revealed that six participants indicated that the children spent 10 minutes or less per week writing on their own. On the other hand, six participants indicated that their students spent more than 150 minutes per week writing on their own (with three of these participants stating that their children write on their own more than 300 minutes per week). The most common answers were 30 minutes or less (17 participants) and 20 minutes or less (16 participants). However, there were at least five participants for each of the following: 40 or less, 50 or less, sixty or less, seventy-five or less, and ninety or less. Standard deviation reveals the considerable variability in responses.

Table 5. Number of minutes children spend on independent writing.

	<i>n</i>	<i>M</i>	<i>SD</i>
Number of Minutes	70	65.35	80.42

Source. Survey of Writing Practices in Prekindergarten, *Part V*, Question 1

Note. $N = 70$, Min = 3, Max = 500

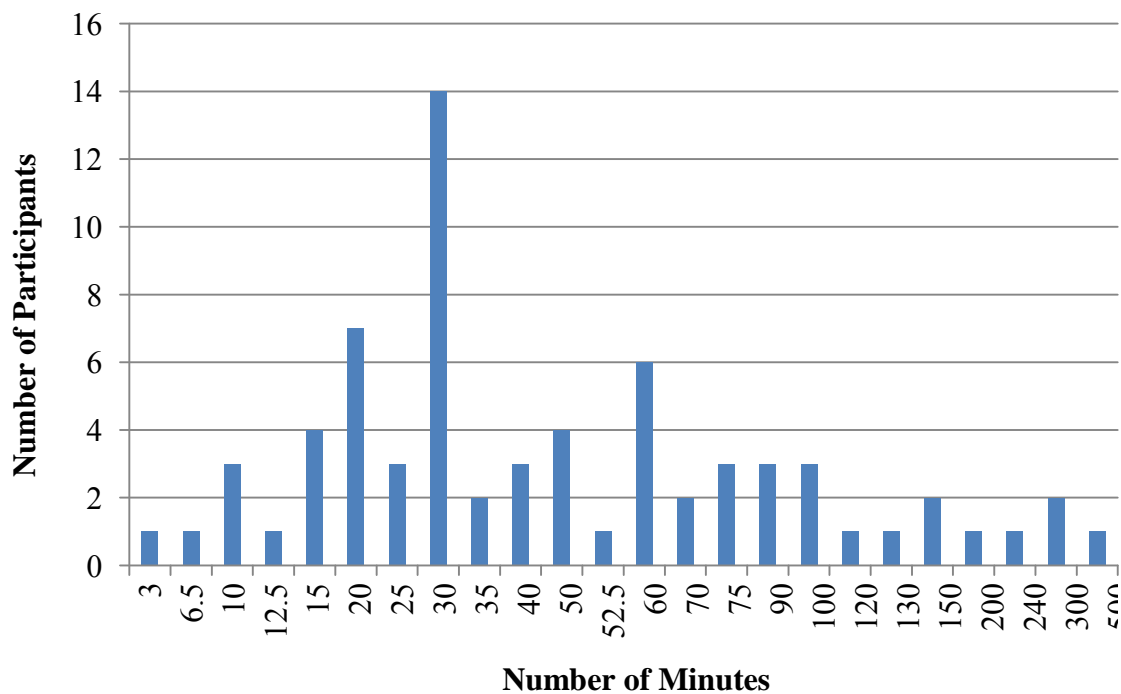


Figure 4. Number of minutes children spend per week on independent writing.
Source. Survey of Writing Practices in Prekindergarten, *Part V*, Question 2

On the second question in *Part V* teachers indicated how much of their guided instruction in writing involved using modeled, shared, or interactive writing each week. Table 6 shows the results and extreme variation of the descriptive statistics on this question. Teachers reported that they averaged 65 minutes on modeled writing (where the teacher demonstrates writing in front of the students); 56 minutes on shared writing (where the teacher writes and students provide ideas and suggestions); and 38 minutes on interactive writing (where the teacher shares the pen with the students to write a letter or word or add punctuation). Standard deviation reveals the considerable variability in responses.

Table 6. Number of minutes spent on guided writing.

Form of Guided Writing	<i>M</i>	<i>SD</i>
Modeled Writing	64.9	92.77
Shared Writing	55.5	85.94
Interactive Writing	38.0	42.43

Source. Survey of Writing Practices in Prekindergarten, *Part V*, Question 2a, 2b, 2c

Note. *N* = 65, Min = 0, Max = 660

The third, fourth and fifth question on Part V of the survey ask the percentage of instructional time in writing involves whole group (3), small group or cooperative learning activities (4) and individualized instruction (5). Table 7 shows the results of the descriptive statistics on this question. Means reveal that teachers reported that they spent an average of 44% of their instructional time in whole group instruction on writing, 32% of their instructional time in small group instruction on writing, and 18% of their instructional time in individualized instruction on writing. The minimum (five) and maximum (100) times varied widely. Again, the standard deviations reflect the wide variations in the number of minutes teachers perceive that they spend on different forms of groupings in their classrooms.

Table 7. Mean percentage of time spent on instruction in writing by grouping.

Grouping	<i>n</i>	<i>M</i>	<i>SD</i>
Whole Group	70	44.19	24.68
Small Group	69	31.65	19.59
Individualized	67	18.97	11.47

Source. Survey of Writing Practices in Prekindergarten, *Part V*, Questions 3, 4, and 5

Note. N = 67-7, Min = 0, Max = 100

Table 8 reports the results from the third section (question #7) taken from *Part V* of the survey and provides information on 15 writing activities in which children could potentially participate during their prekindergarten year and the number of teachers who reported that their students would participate in that activity. By far the most common activity in which children will participate during their prekindergarten year is to draw a picture and write something to go with it; this was the only item marked by more than 90% of the participants (93.3%). Over 80% of the teachers reported that their students will also engage in copying text (82.7%), and will participate in journal writing (80%). Over 70% reported that their students would engage in writing stories (78.8%), making books (77.3%), making alphabet books (74.4%), and creating lists (73.3%). (Percentages have been rounded up or down on Table 33). Nine of the activities in this section were checked by 60% or more of the teachers completing the survey. Less than 50% of the participants checked writing poems, writing personal narratives, writing plays, and engaging in other types of writing. Less than 10% of the participants checked comic strips and book reports.

Teachers were invited to write in other types of writing in which their students would participate during the year not named on the checklist. Eleven additional items were added to the list by participants. They included: name writing, writing word families/rhyming words, scribbling, writing a book of favorites, skywriting and sand writing, labeling objects and creating sentences about those objects, creating a graphic organizer, and completing sentence stems. One of the few teachers who checked that her students would participate in plays also indicated that the dramatization of stories and story dictation was part of her participation in the Rice University Classroom Storytelling Project (Cooper, Capo, Mathes, & Gray, 2007). Of the additional 11 items named, skywriting was the only item on the list named more than once. Again, this shows the amount of variation in practice provided in prekindergarten classrooms.

Table 8. Writing activities used by students by frequency and percentage.

Writing Activities	Frequency	Percentage
Draw a picture and writing something to go with it	70	93
Copy text	62	83
Journal writing	60	80
Write stories	59	79
Make books	58	77
Make alphabet books	56	75
Make lists	55	73
Write in response to reading	46	61
Complete worksheets	45	60
Poems	29	39
Personal narratives	28	37
Plays	11	15
Other types of writing	9	12
Book reports	6	8
Comic strips	3	4

Source. Survey of Writing Practices in Prekindergarten, *Part V*, Question 7

The fourth and largest section on Part V of the survey reports the descriptive statistics on 33 Likert-type items: never (1), several times a year (2), monthly (3), several times a month (4), weekly (5), several times a week (6), daily (7), and several times a day (8). Four items ranged on a scale of never, half of the time, or always. It should be noted, however, that never corresponded with never; half the time corresponded with several times a month; and always corresponded with several times a day. This section asked teachers to circle how often a practice occurs in their classrooms on the 8-point scale.

Seventy-three of the 75 participants who completed the survey finished Part V of the survey. Of the 73 who finished, three participants skipped between one and three of the remainder of the questions after question 20. (The number of each question is in parentheses following the bulleted items on the chart). This accounts for the variation in the numbers of participants also recorded on the chart (e.g., $n = 73$; $n = 72$; $n = 68$, etc.). See Table 9, *Teacher Perceptions of Frequency of Time Spent of Writing Strategies*. The table reports means and standard deviations for each item as selected by the teachers who answered the questions.

The most frequently employed strategies to support student writing were that the teacher instructs students in handwriting skills ($M = 6.39$), the teacher instructs students in capitalization skills ($M = 6.27$), the students work at writing centers ($M = 6.25$), the students use “invented spellings” ($M = 6.21$), and the teacher reads her own writing to students ($M = 6.01$). Teachers also checked that the teacher instructs students on sentence construction skills ($M = 5.90$), teaches punctuation ($M = 5.81$), models a love

and enjoyment for writing ($M = 5.90$), overtly models writing strategies ($M = 5.84$), and reteaches writing skills or strategies that have been previously taught ($M = 5.71$). The strategies teachers seem to use the least included rubrics ($M = 2.06$), and asking their students to dictate their stories to someone else ($M = 2.81$). The number of participants who responded to each question is reported in the table below, due to the range of participants ($N = 68-73$).

A second table, Table 10, *Categories of Writing by Percentage of Use* shows the actual percentages for each item previously discussed on Table 9, which was modeled after the table used by Cutler and Graham (2008) in their national survey of primary teachers.

Support student writing. In the first section, the most frequently used strategy to support student writing was invented spelling, which 45% of the teachers reported that used several times a day; 10% used daily; and 18% used several times a week.

Teach basic writing skills The most frequently used strategy for teaching basic writing skills was handwriting skills, which 21% of the teachers reported they used several times a day; 40% used daily; and 19% used several times a week. However, teachers reported using several of the basic writing skills several times a day, daily, and several times a week, including capitalization (17% used several times a day; 46% used daily; and 16% used several times a week) and punctuation (12% used several times a day; 39% used daily, and 17% used several times a week)

Table 9. Teacher perceptions of frequency of time spent of writing strategies.

Writing Activities	<i>n</i>	<i>M</i>	<i>SD</i>
Teaches handwriting	72	6.39	1.50
Teaches capitalization	70	6.27	1.69
Students work at writing centers	69	6.25	1.23
Students use “invented spellings”	73	6.21	2.07
Teacher reads own writing to students	73	6.01	2.20
Teacher teaches sentence construction skills	73	5.90	2.01
Models enjoyment/love of writing	68	5.90	1.77
Models writing strategies	70	5.84	1.72
Teaches punctuation	72	5.81	1.93
Reteaches writing skills	70	5.71	1.73
Lessons have multiple instructional goals	69	5.68	1.68
Provides mini-lessons	70	5.46	1.85
Students complete writing assignment at own pace	72	5.36	1.71
Teachers use writing prompt	69	5.23	1.72
Teaches grammar	72	5.19	2.21
Teaches text organization	72	5.17	1.95
Students use writing to support reading	68	5.10	1.92
Students use writing in other content areas	69	5.10	1.96
Teaches spelling	72	5.04	2.22
Students use reading to support writing	71	5.03	1.64
Monitor writing for decision-making	69	4.93	1.81
Students help classmates with writing	73	4.89	2.09
Students share writing with peers	73	4.48	1.63
Teaches strategies for planning	72	4.40	1.88
Students monitor own writing progress	69	4.32	2.33
Teachers ask students to write at home with parental help	70	4.30	2.03
Students use computers during writing time	71	4.30	2.32
Assigns writing homework	70	4.09	2.16
Students use graphic organizer	69	3.91	1.72
Teacher asks parents to listen to child’s school writing	70	3.44	2.01
Teaches strategies for revising	72	3.21	2.06
Students use writing portfolio	69	3.16	2.11
Teacher communicates with parents about writing	70	3.07	1.56
Students dictate writing to someone else	70	2.81	1.91
Students use rubrics	69	2.06	1.74

Source. Survey of Writing Practices in Prekindergarten, *Part V*

Note. *N* = 68-73, Min = 1, Max = 8

Teach writing process. The most frequently reported strategy used several times a day to teach the writing process was sentence construction (18%). However, when you take into account how often teachers modeled writing strategies, the total percentage for modeling writing strategies is higher than for teaching sentence construction (69% versus 66%). several times a day (13%), daily (33%), and several times a week (23%).

General instructional procedures. Three general instructional procedures were used frequently in the classroom as reported by teachers. The strategy reported most frequently, occurring several times a day, was teaching multi-goal lessons (19%). Reteaching skills were reported most frequently (63%) when the total of several times a day (6%), daily (36%), and several times a week (21%) was taken into consideration. Teaching mini-lessons was close behind with a total of 61%, with percentages of 11% for several times a day; daily (17 %), and several times a week (33%).

Promoting motivation for writing. To promote motivation for writing, 29 % of the teachers reported that they read their own writing to children several times a week. Totals for the teacher reading their own writing to children and modeling enjoyment or love of writing were the same (71%) when taking into consideration the totals for several times a day (29% versus 15%); daily totals (32% versus 40%); and the several times a week totals (10% versus 16%). However, the practice of providing writing centers was the highest in promoting motivation (77%) with totals for several times a day (7%); daily (48%); and several times a week (22%).

Assessment. The majority of prekindergarten teachers reported that they monitored the writing process for decision-making on a weekly basis or more (63%). In contrast, 65% of the teachers reported that they never use rubrics with their students for the purpose of assessing their writing.

Home environment. The majority of prekindergarten teachers reported that they assigned writing homework to their students (54%) at least weekly and an equal number of teachers (54%) reported that they encouraged their students to write at home at least weekly.

Research question three. The next research question asked if there were any significant differences ($p < .05$) in frequency of writing usage by teacher certification, years of experience, or type of program. To answer this question, a one-way ANOVA was conducted to examine the differences by each area. There were no significant differences among or between groups in the area of certification. There was a significant difference between groups on how often writing lessons have multiple instructional goals ($p < .042$). The only area that showed a significant difference in frequency of writing usage was between groups on how often teachers encouraged their students to use of invented spellings ($p < .048$) which was significant at the $p < .05$ level. Table 11 reports these results. Question #43 was not included in this analysis because it was an open-ended question.

Table 10. Categories of writing practice by percentage.

Writing Practice	Never	Several times/ year	Once a month	Several times/ month	Once a week	Several times/ week	Daily	Several times/ day
Support student writing								
Help classmates with writing (9) (<i>n</i> = 73)	10%	11%	4%	12%	14%	13%	36%	1%
Complete assignments @ own pace (10) (<i>n</i> = 72)	3%	1%	2%	33%	10%	22%	14%	14%
Use invented spellings (11) (<i>n</i> = 73)	3%	5%	3%	12%	4%	18%	10%	45%
Planning (15) (<i>n</i> = 72)	10%	8%	15%	13%	21%	27%	8%	3%
Revising (16) (<i>n</i> = 72)	33%	13%	10%	13%	18%	7%	8%	0%
Provide a writing prompt (29) (<i>n</i> = 69)	4%	4%	9%	9%	20%	26%	26%	1%
Use a graphic organizer (30) (<i>n</i> = 69)	13%	4%	17%	36%	12%	12%	3%	3%
Teach basic writing skills								
Teach spelling (18) (<i>n</i> = 72)	11%	8%	7%	8%	18%	15%	22%	12%
Teach handwriting (17) (<i>n</i> = 72)	1%	1%	3%	6%	10%	19%	4%	21%
Teach grammar (19) (<i>n</i> = 72)	11%	7%	6%	4%	17%	19%	28%	10%
Teach punctuation (20) (<i>n</i> = 72)	4%	6%	6%	4%	12%	17%	39%	12%
Teach capitalization (21) (<i>n</i> = 70)	3%	4%	3%	0%	11%	16%	46%	17%
Teach spelling (18) (<i>n</i> = 72)	11%	8%	7%	8%	18%	15%	22%	12%

Table 10. Continued.

Writing Practice	Never	Several times/ year	Once a month	Several times/ month	Once a week	Several times/ week	Daily	Several times/ day
Writing process								
Teach sentence construction (13) (<i>n</i> = 73)	5%	5%	1%	10%	12%	7%	41%	18%
Text organization (14) (<i>n</i> = 73)	7%	7%	4%	14%	16%	22%	24%	7%
Model writing strategies (23) (<i>n</i> = 70)	3%	1%	7%	7%	10%	23%	33%	13%
General instructional procedures								
Teach mini-lessons (22) (<i>n</i> = 70)	7%	1%	6%	9%	18%	33%	17%	11%
Reteach skills (25) (<i>n</i> = 70)	4%	4%	3%	4%	20%	21%	36%	6%
Multi-goal lessons (28) (<i>n</i> = 69)	0%	0%	9%	28%	4%	26%	13%	19%
Dictating composition (38) (<i>n</i> = 70)	39%	17%	11%	10%	13%	7%	4%	0%
Use computers to draw/write (39) (<i>n</i> = 70)	19%	13%	4%	9%	19%	16%	17%	4%

Table 10. Continued.

Writing Practice	Never	Several times/ year	Once a month	Several times/ month	Once a week	Several times/ week	Daily	Several times/ day
Promote motivation								
Share writing with peers (8) (<i>n</i> = 73)	4%	12%	10%	19%	23%	23%	8%	0%
Teacher reads own writing to students (12) (<i>n</i> = 73)	7%	5%	4%	5%	8%	10%	32%	29%
Teacher models enjoyment or love of writing (24) (<i>n</i> = 68)	3%	4%	1%	13%	0%	16%	40%	15%
Provide writing centers (27) (<i>n</i> = 69)	0%	0%	1%	3%	19%	22%	48%	7%
Assessment								
Monitor writing process for decision-making (31) (<i>n</i> = 69)	4%	6%	14%	12%	23%	16%	20%	4%
Encourage student-monitoring (32) (<i>n</i> = 69)	20%	10%	7%	7%	17%	14%	19%	4%
Use rubrics for student evaluation (33) (<i>n</i> = 69)	65%	7%	6%	12%	3%	3%	4%	0%
Use writing portfolios (34) (<i>n</i> = 69)	39%	9%	10%	12%	16%	9%	6%	1%

Table 10. Continued.

Writing Practice	Never	Several times/ year	Once a month	Several times/ month	Once a week	Several times/ week	Daily	Several times/ day
Home environment								
Assign writing homework (26) (<i>n</i> = 70)	21%	11%	4%	7%	24%	60%	13%	1%
Students write at home (35) (<i>n</i> = 70)	13%	13%	9%	10%	29%	4%	21%	0%
Parents listen to student writing at teacher request (36) (<i>n</i> = 70)	23%	24%	9%	17%	16%	7%	10%	0%
Communicate with parents about writing (37) (<i>n</i> = 70)	7%	43%	16%	21%	6%	1%	7%	0%
Extend writing to content areas								
Write to support reading (40) (<i>n</i> = 70)	4%	4%	10%	11%	29%	21%	20%	1%
Read to support writing (41) (<i>n</i> = 68)	7%	9%	3%	9%	22%	19%	28%	3%
Write in content areas (42) (<i>n</i> = 69)	6%	9%	1%	16%	17%	29%	14%	7%

Source. Survey of Writing Practices in Prekindergarten, *Part V*, Questions 8-43.

Table 11 shows the frequency of writing usage by years of experience. Means and standard deviations are displayed, as well as F-values for each category. There was a significant difference ($p < .05$) in how often teachers' writing lessons have multiple instructional goals ($p = .042$). The *Bonferroni* post hoc results revealed that teachers with 11 to 19 years of experience teach writing lessons with multiple instructional goals significantly more than teachers with six to 10 years of experience ($p = .034$). There were no other significant differences. Category 5 and Category 6 were not included in the analysis due to low numbers (three in Category 5 and one in Category 6).

Table 11. Summary statistics for ANOVA results on frequency of writing usage by years of experience.

Writing Practices	Category 1 0-5 Years		Category 2 6-10 Years		Category 3 11-19 Years		Category 4 20-29 Years		F
	M	SD	M	SD	M	SD	M	SD	
Share W w/Peer	4.71	1.59	4.68	1.84	4.78	1.59	4.43	1.50	1.027
Stu Help Peer W	5.50	2.37	4.45	2.15	5.00	1.97	5.79	1.31	1.035
Cmpt W Own Pace	5.79	1.71	5.50	1.65	5.22	1.83	4.93	1.82	.668
Use Invent Spell	5.14	2.48	5.63	2.13	6.68	1.70	7.29	1.44	2.43
Teach Read W	6.21	2.36	5.59	2.24	5.78	2.24	6.64	2.13	.529
Teach Sent Const	6.50	1.45	5.23	2.27	6.00	1.97	6.36	1.86	1.243
Teach Text Organ	5.23	2.28	5.73	1.88	5.00	1.97	5.86	1.88	.869
Teach Strat Plan	4.36	1.55	4.09	1.87	4.44	1.92	4.86	2.41	.036
Teach Strat Revis	2.71	1.59	3.00	1.98	3.61	2.38	3.64	2.24	.954
Teach Handwriting	6.36	1.86	6.45	1.34	6.22	1.70	6.57	1.16	.803
Teach Spelling	5.21	1.97	5.09	2.18	5.56	2.09	4.50	2.41	1.051
Teach Grammar	5.00	2.45	5.36	2.24	4.89	2.30	5.21	2.12	.584
Teach Punct	6.14	1.96	5.63	1.99	5.33	2.11	6.07	1.74	.753
Teach Capit	6.85	1.46	5.95	1.96	6.17	1.62	6.14	1.75	.700
Provide Mini-Less	5.92	1.89	5.24	2.12	5.33	1.81	5.43	1.79	.241
Overtly Model W	6.31	1.60	5.38	1.94	5.83	1.76	6.00	1.62	.715

Table 11. Continued.

Writing Practices	Category 1 0-5 Years		Category 2 6-10 Years		Category 3 11-19 Years		Category 4 20-29 Years		F
	M	SD	M	SD	M	SD	M	SD	
Model Love of W	5.69	2.06	5.68	1.89	6.06	1.95	6.21	1.31	.385
Reteach W Strat	5.61	1.94	5.57	1.69	5.89	1.88	6.00	1.04	.359
Assign W Hmwk	5.54	1.45	4.10	2.26	3.44	2.36	3.57	1.87	1.964
Stu Wk W Cent	6.62	1.12	6.05	.89	6.11	1.71	6.29	1.20	.449
W Less Multi-Gl	5.85a	1.72	4.90b	1.48	6.39a	1.58	5.93	1.64	2.471*
Use W Prompt	4.54	1.94	4.95	1.90	6.00	1.28	5.21	1.31	1.579
Use Graphic Org	3.15	1.77	3.60	1.69	4.67	1.61	4.00	1.24	1.813
T Monit W Prog	5.08	1.93	4.75	1.86	5.11	1.91	4.86	1.41	.898
Stud Mon W Prog	4.23	2.74	4.40	2.30	4.56	2.20	4.07	2.06	1.010
Stud Use Rubrics	2.25	2.18	1.86	1.28	2.22	2.07	2.07	1.82	.489
Stud Use Portfolio	3.08	2.15	2.90	2.02	3.44	2.36	5.29	8.28	.620
Stud W at Hm w/P	5.15	2.12	4.57	2.20	3.89	2.19	3.64	1.50	.973
Parent Listen to W	3.92	2.69	3.19	2.04	3.11	1.91	3.50	1.34	.315
Comm w/P on W	3.00	1.53	3.14	1.74	3.11	1.60	2.86	1.17	.245
Stu Dictates to Per	2.85	2.23	2.86	2.13	2.83	1.86	2.64	1.69	.064
Stud Uses Comput	3.62	2.50	4.38	2.38	4.67	2.06	4.21	2.58	.322
Stud Uses W-R	4.62	1.61	5.14	1.80	5.56	1.69	4.64	1.55	.871
Stud Uses R-W	5.17	2.04	5.24	1.79	4.89	2.22	5.29	1.77	.634
Stu Use W in Cont	5.54	1.90	4.86	1.88	5.00	2.30	5.50	1.61	1.201

Note. * $p < .05$.

Table 12 shows the frequency of writing practices by certification. Means and standard deviations are provided, as well as the F-values for each variable. There were no significant differences found in writing practices by certification. Categories 1, 2, and 3 were eliminated from Table 12 because there was only one person each in Category 1 and Category 2 and only two people in Category 3.

Table 12. Summary statistics for ANOVA results on frequency of writing practices by type of certification.

Writing Practices	Category 4 Four-Yr Bac		Category 5 Bac/Alt Cer		Category 6 Master's		Category 7 Master's +		F
	M	SD	M	SD	M	SD	M	SD	
Share W w/Peer	4.05	1.63	4.38	1.78	4.73	1.62	5.29	.95	.996
Stu Help Peer W	5.00	1.79	4.90	2.41	4.00	1.79	5.29	1.50	.765
Cmpt W Own Pace	5.29	1.95	5.21	1.63	5.73	1.85	5.29	1.38	.543
Use Invent Spell	6.57	1.83	6.31	2.02	5.73	2.00	5.71	2.75	.977
Teach Read W	5.81	2.38	6.07	2.34	5.64	2.25	6.00	1.63	.384
Teach Sent Const	6.00	1.87	6.14	1.81	5.36	2.50	5.14	2.85	.640
Teach Text Organ	4.85	2.03	5.17	1.91	5.27	1.95	5.00	2.45	.610
Teach Strat Plan	4.00	1.79	4.48	2.06	4.27	1.49	4.83	2.32	.475
Teach Strat Revis	2.90	1.89	3.72	2.19	2.18	1.60	3.17	1.84	2.087
Teach Handwriting	6.43	1.33	6.48	1.53	5.73	1.95	6.17	1.17	.995
Teach Spelling	5.19	2.16	5.34	2.07	4.55	2.42	2.67	2.07	2.048
Teach Grammar	4.95	2.42	5.14	2.05	6.18	2.04	3.33	2.25	1.581
Teach Punct	5.86	2.06	5.45	1.96	6.36	1.69	5.83	2.40	.555
Teach Capit	6.20	1.85	6.18	1.74	6.73	1.10	5.67	2.42	.461
Provide Mini-Less	5.00	2.02	5.70	1.71	5.45	2.02	5.17	2.14	.550
Overtly Model W	5.43	1.72	6.15	1.51	5.36	2.25	5.83	1.83	1.074
Model Love of W	5.55	1.76	6.04	1.82	6.09	2.12	5.50	1.38	.729
Reteach W Strat	5.38	1.47	5.96	1.81	5.18	2.36	5.67	1.03	.918
Assign W Hmwk	3.81	2.20	3.70	2.05	4.73	2.20	3.67	2.34	1.274
Stu Wk W Cent	6.10	1.04	6.08	1.16	6.09	1.87	7.00	.00	1.368
W Less Multi-Gl	5.43	1.75	5.96	1.54	5.55	1.81	5.17	1.72	1.083
Use W Prompt	4.95	1.77	5.38	1.47	4.91	2.07	5.17	2.14	.619
Use Graphic Org	3.71	1.55	4.04	1.43	3.73	2.20	3.50	1.38	1.455
T Monit W Prog	4.52	1.97	5.08	1.49	4.64	2.25	4.83	.75	.972
Stud Mon W Prog	3.71	2.57	4.77	2.03	3.55	2.42	4.83	1.72	.896
Stud Use Rubrics	1.76	1.70	2.23	1.70	2.27	2.00	2.00	1.55	1.226
Stud Use Portfolio	3.19	2.25	2.73	1.89	6.36	9.08	3.00	2.76	1.128
Stud W at Hm w/P	4.10	2.07	3.78	1.99	4.82	2.14	5.00	1.90	1.224
Parent Listen to W	3.29	2.17	3.19	1.92	3.27	1.62	3.00	1.55	1.609
Comm w/P on W	2.90	1.58	2.78	1.22	3.27	1.62	2.83	.75	1.828

Table 12. Continued.

Writing Practices	Category 4 Four-Yr Bac		Category 5 Bac/Alt Cer		Category 6 Master's		Category 7 Master's +		F
	M	SD	M	SD	M	SD	M	SD	
Stu Dictates to Per	2.95	2.16	2.63	1.80	2.55	1.63	2.50	1.38	.995
Stud Uses Comput	4.36	2.48	3.96	2.21	4.45	2.46	3.50	2.35	.976
Stud Uses W-R	4.86	1.93	5.11	1.45	5.64	1.21	3.67	1.75	1.272
Stud Uses R-W	4.90	1.95	4.88	1.99	5.18	1.94	6.00	2.00	.610
Stu Use W in Cont	5.24	2.14	4.93	1.73	5.18	2.18	4.33	2.34	.650

The final planned analysis intended to look at any differences in the frequency of writing by the school where the teachers worked. However, 60 out of 75 participants who completed the survey indicated that they were enrolled in a public prekindergarten program. Because the numbers for the other types of schools and programs were underrepresented in comparison, no further analyses were conducted.

Research question four. To determine if any significant differences ($p < .05$) exist among writing usage by student groups in prekindergarten, particularly ELLs and monolingual students, a one-way ANOVA was conducted. There were several significant differences found between groups of ethnicity: students practice forming letters in sensory materials ($p = .011$); students demonstrate an understanding of directionality by scribbling a list starting at the top the page, or starting on the left side of the paper and progressing to the right ($p = .025$); students participate in copying letters or shapes (0, X, +) using a variety of writing tools, such as markers, crayons, and pencils ($p = .030$); student creates a page about a family member or pet and states why he or she loves this person or what he or she does to care for this animal ($p = .035$); creates a page

for a book about an informational text shared in the class ($p = .007$); revisits a writing box to create a new mini-book or to investigate the props in a new way ($p = .018$); takes home class-made books from the classroom library to share with family members, who write a response in the back of the book ($p = .013$); takes home books from the class or school library in the child's native language, and the children draws a favorite character or dictates a favorite part of the story to family members ($p = .040$); the child takes home a packet of writing tools and paper to write about a favorite family activity ($p = .033$); and imitates the roles modeled by the teacher during a dramatic play literacy event ($p = .034$). Because of the small group size, unbalanced compared with the other ethnicities, statistical significance for these results are weak, and thus do not provide helpful information.

Table 13. Differences in writing usage by ethnicity.

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
PartIV_1	Between Groups	5.766	4	1.441	1.278	.288
	Within Groups	73.320	65	1.128		
	Total	79.086	69			
PartIV_1a	Between Groups	8.196	4	2.049	1.638	.175
	Within Groups	83.804	67	1.251		
	Total	92.000	71			
PartIV_1b	Between Groups	5.867	4	1.467	1.240	.302
	Within Groups	79.244	67	1.183		
	Total	85.111	71			
PartIV_2	Between Groups	1.660	4	.415	.739	.569
	Within Groups	37.618	67	.561		
	Total	39.278	71			
PartIV_2a	Between Groups	13.341	4	3.335	3.526	.011*
	Within Groups	64.330	68	.946		
	Total	77.671	72			
PartIV_2b	Between Groups	5.964	4	1.491	2.974	.025*
	Within Groups	34.091	68	.501		
	Total	40.055	72			

Table 13. Continued.

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
PartIV_3	Between Groups	3.467	4	.867	.876	.483
	Within Groups	66.311	67	.990		
	Total	69.778	71			
PartIV_3a	Between Groups	1.707	4	.427	.454	.769
	Within Groups	62.904	67	.939		
	Total	64.611	71			
PartIV_3b	Between Groups	4.416	4	1.104	1.115	.357
	Within Groups	64.384	65	.991		
	Total	68.800	69			
PartIV_3c	Between Groups	4.986	4	1.246	.980	.425
	Within Groups	83.944	66	1.272		
	Total	88.930	70			
PartIV_3d	Between Groups	6.537	4	1.634	1.873	.125
	Within Groups	58.450	67	.872		
	Total	64.986	71			
PartIV_4	Between Groups	.375	4			
	Within Groups	47.925	65	.737		
	Total	48.300	69			
PartIV_4a	Between Groups	8.884	4	2.221	2.383	.060
	Within Groups	62.436	67	.932		
	Total	71.319	71			
PartIV_4b	Between Groups	6.299	4	1.575	2.346	.063
	Within Groups	44.979	67	.671		
	Total	51.278	71			
PartIV_4c	Between Groups	2.919	4	.730	.415	.797
	Within Groups	116.067	66	1.759		
	Total	118.986	70			
PartIV_4d	Between Groups	7.363	4	1.841	1.754	.148
	Within Groups	70.290	67	1.049		
	Total	77.653	71			
PartIV_4e	Between Groups	6.114	4	1.528	.986	.421
	Within Groups	105.393	68	1.550		
	Total	111.507	72			
PartIV_5	Between Groups	1.435	4	.359	.774	.546
	Within Groups	29.197	63	.463		
	Total	30.632	67			
PartIV_5a	Between Groups	4.132	4	1.033	1.274	.289
	Within Groups	54.313	67	.811		
	Total	58.444	71			
PartIV_5b	Between Groups	1.951	4	.488	.592	.669
	Within Groups	55.160	67	.832		
	Total	57.111	71			
PartIV_6	Between Groups	3.780	4	.945	2.857	.030*
	Within Groups	22.164	67	.331		
	Total	25.944	71			

Table 13. Continued.

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
PartIV_6a	Between Groups	7.409	4	1.852	2.438	.055
	Within Groups	50.910	67	.760		
	Total	58.319	71			
PartIV_6b	Between Groups	11.923	4	2.981	2.351	.063
	Within Groups	84.952	67	1.268		
	Total	96.875	71			
PartIV_6c	Between Groups	8.215	4	2.054	1.894	.122
	Within Groups	72.660	67	1.084		
	Total	80.875	71			
PartIV_7	Between Groups	7.415	4	1.854	2.105	.091
	Within Groups	54.585	62	.880		
	Total	62.000	66			
PartIV_7a	Between Groups	8.014	4	2.004	2.081	.093
	Within Groups	63.535	66	.963		
	Total	71.549	70			
PartIV_7b	Between Groups	12.018	4	3.005	2.759	.035
	Within Groups	72.968	67	1.089		
	Total	84.986	71			
PartIV_7c	Between Groups	9.732	4	2.433	3.825	.007**
	Within Groups	41.986	66	.636		
	Total	51.718	70			
PartIV_8	Between Groups	5.997	4	1.499	.800	.530
	Within Groups	116.182	62	1.874		
	Total	122.179	66			
PartIV_8a	Between Groups	3.684	4	.921	.903	.467
	Within Groups	68.316	67	1.020		
	Total	72.000	71			
PartIV_8b	Between Groups	8.088	4	2.022	1.297	.280
	Within Groups	102.869	66	1.559		
	Total	110.958	70			
PartIV_9	Between Groups	3.020	4	.755	.572	.684
	Within Groups	88.480	67	1.321		
	Total	91.500	71			
PartIV_9a	Between Groups	6.915	4	1.749	1.441	.230
	Within Groups	81.578	68	1.200		
	Total	88.493	72			
PartIV_9b	Between Groups	8.795	4	2.199	2.194	.079
	Within Groups	67.149	67	1.002		
	Total	75.944	71			
PartIV_10	Between Groups	11.073	4	2.768	2.276	.071
	Within Groups	76.618	63	1.216		
	Total	87.691	67			

Table 13. Continued.

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>
PartIV_10	Between Groups	4.427	4	1.107	1.036	.395
	Within Groups	71.573	67	1.068		
	Total	76.000	71			
PartIV_10	Between Groups	5.446	4	1.361	.940	.446
	Within Groups	96.999	67	1.448		
	Total	102.444	71			
PartIV_10	Between Groups	10.714	4	2.679	3.228	.018*
	Within Groups	53.929	65	.830		
	Total	64.643	69			
PartIV_11	Between Groups	2.679	4	.670	.906	.466
	Within Groups	45.079	61	.739		
	Total	47.758	65			
PartIV_11	Between Groups	3.362	4	.840	.829	.511
	Within Groups	67.916	67	1.014		
	Total	71.278	71			
PartIV_11	Between groups	4.214	4	1.053	.865	.489
	Within groups	81.564	67	1.217		
	Total	85.778	71			
PartIV_11	Between groups	8.015	4	2.004	1.289	.283
	Within groups	102.605	66	1.555		
	Total	110.620	70			
PartIV_11	Between groups	8.146	4	2.036	1.497	.213
	Within groups	88.440	65	1.361		
	Total	96.586	69			
PartIV_11	Between groups	5.628	4	1.407	1.005	.411
	Within groups	90.958	65	1.399		
	Total	96.586	69			
PartIV_11f	Between groups	5.971	4	1.493	1.295	.282
	Within groups	73.797	64	1.153		
	Total	79.768	68			
PartIV_12	Between groups	3.344	4	.836	.521	.721
	Within groups	94.656	59	1.604		
	Total	98.000	63			
PartIV_12	Between groups	20.817	4	5.204	3.450	.013*
	Within groups	98.055	65	1.509		
	Total	118.871	69			
PartIV_12	Between groups	19.584	4	4.896	2.672	.040*
	Within groups	119.116	65	1.833		
	Total	138.700	69			
PartIV_12	Between groups	12.934	4	3.234	2.809	.033*
	Within groups	74.837	65	1.151		
	Total	87.771	69			
PartIV_12	Between groups	1.306	4	.327	.513	.727
	Within groups	42.680	67	.637		
	Total	43.986	71			

Table 13. Continued.

		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
PartIV_13	Between groups	9.310	4	2.328	1.620	.180
	Within groups	91.936	64	1.437		
	Total	101.246	68			
PartIV_13a	Between groups	2.294	4	.574	.495	.739
	Within groups	77.581	67	1.158		
	Total	79.875	71			
PartIV_13b	Between groups	5.658	4	1.414	1.151	.340
	Within groups	82.342	67	1.229		
	Total	88.000	71			
PartIV_13c	Between groups	10.778	4	2.695	2.770	.034*
	Within groups	65.166	67	.973		
	Total	75.944	71			
PartIV_13d	Between groups	1.467	4	.367	.271	.895
	Within groups	90.519	67	1.351		
	Total	91.986	71			

Note. * $p < .05$. ** $p < .01$.

Research question five. The last question for Article #1 asks if there are significant differences ($p < .05$) among teacher perceptions of writing stages of students by student groups in prekindergarten, particularly ELLs and monolingual students. In Part II of the survey (question 9), teachers were asked to provide an assessment of the overall writing achievement of the students in their classrooms at midyear in prekindergarten by writing the number of students who fit within each stage of writing. A total of 63 participants estimated the number of students who fit within each stage of writing/spelling; the total number of students matched the number of students in their classrooms. However, if the participant checked a particular stage, rather than writing a number, they were not included in the overall totals.

Twenty of the 63 classrooms represented classrooms with 100% ELLs, revealing how widely ELLs were represented in this study. Sixteen of the classrooms indicated

that they had 20% or more ELLs in their classrooms, but less than 100%. Thirteen of the 63 classrooms did not indicate that any of the students were ELLs. However, ELLs and monolingual students appear to represent each of the five stages, without any large discrepancies between the ways that teachers perceive their progress.

In Stage 5, children write with some conventional spelling and some phonetic invented spelling (sound symbol matching) to write a short message. A total of one hundred and one (101) students were reported to be writing at Stage 5 at midyear in prekindergarten. Students are **Stage 4** writers/spellers (children are using some phonetic and some semiphonetic invented spelling (beginning sound matching or letter name matching) to write a message at midyear. Two hundred and ten (210) students were reported to be writing at Stage 4 at midyear in prekindergarten. Students are **Stage 3** writers/spellers (children are using some semiphonetic spelling and some nonphonetic letter strings (no sound/symbol matching) with spaces between groups of letters to write a message at midyear). Three hundred and twenty (320) students were reported to be writing at Stage 3 at midyear in prekindergarten. Students are **Stage 2** writers/spellers (children are using mock letters or letter-like forms and nonphonetic letter strings without spaces between groups of letters to write a message at midyear). Three hundred and ninety-six (396) students were reported to be writing at Stage 2 at midyear in prekindergarten. Students are **Stage 1** writers/spellers (children are using mostly drawing and scribbling to convey a message at midyear). Three hundred and fifteen (315) students were reported to be writing at Stage 1 at midyear in prekindergarten. The majority of the total numbers of students (1342) were reported to be writing at Stage 2

(396), representing 30% of the total numbers of students. It is interesting to note that the total of students in Stage 3 (396) alone is greater than the total number of students in Stage 4 and Stage 5 (311). The descriptive statistics for question 9 are provided below.

Table 14. Descriptive statistics for stages of writing at midyear in prekindergarten.

Stage of Writing	<i>M</i>	<i>SD</i>
Stage 2 (nonphonetic letter strings and mock letters)	6.73	6.78
Stage 1 (drawing and scribbling)	4.84	5.94
Stage 3 (semiphonetic and nonphonetic)	4.59	4.31
Stage 4 (phonetic and semiphonetic)	3.63	4.28
Stage 5 (conventional and phonetic)	1.89	3.60

Source. Survey of Writing Practices in Prekindergarten, *Part II*, Question 9

Note. ($n = 70$)

Adjusted Results for *Part IV*

A three-way ANOVA was initially conducted to determine if there were significant differences ($p < .05$) in writing stages by years of experience, teacher certification, and type of program where the teacher works. However, upon investigation of the between-subject factors for writing stages in Table 3, small sample sizes and unbalanced cells were revealed, leading to a shift in the analysis. First, the variable, *Where Teachers Teach*, was eliminated. Secondly, two categories in the variable, *Years of Experience*, were merged. The categories representing 30-39 years of experience (category 4, $n = 13$) and 40+ years of experience (category 5, $n = 3$) were merged because of the small sample size in category 5. Thirdly, three categories in the *Higher Education* variable were collapsed, 1 ($n = 1$), 2 ($n = 1$), and 3 ($n = 2$), 7 ($n = 6$), leaving the categories of 4 (four-year/baccalaureate, $n = 16$), 5 (four-year/baccalaureate

plus alternate certification, n = 23), and 6 (Master's degree, n = 11). Table 4 shows the between-subject factors for writing stages using the adjusted figures.

Table 15. Between-subjects factors for writing stages.

		<i>n</i>
B. Years of Experience	1.00	10
	2.00	20
	3.00	14
	4.00	13
	5.00	3
C. Higher Education	1.00	1
	2.00	1
	3.00	2
	4.00	16
	5.00	23
	6.00	11
	7.00	6
D. Teaching Location	1.00	52
	2.00	2
	3.00	3
	5.00	3

Table 16. Adjusted between-subjects factors for writing stages.

		<i>n</i>
B. Years of Experience	1.00	8
	2.00	18
	3.00	13
	4.00	13
C. Higher Education	4.00	17
	5.00	24
	6.00	11

A two-way ANOVA was then conducted to in order to determine whether there were any significant differences ($p < .05$) by years of experience and level of higher education on writing stages. Table 17 reveals that the F -value for each of the independent variables for years of experience and teacher certification is not significant ($p < .05$). We fail to reject the null hypothesis for these factors. It cannot be concluded that writing stages can be attributed to number of years a teacher has been teaching, or the type of certification earned in higher education.

Table 17. Two-way ANOVA tests of between-subjects effects (writing stages).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	3.744 ^a	11	.340	1.277	.272
Intercept	577.934	1	577.934	2168.782	.000
B. Years of Experience	.441	3	.147	.551	.650
C. Higher Education	1.312	2	.656	2.461	.098
B. Years of Experience C. Higher Education	1.503	6	.251	.940	.477
Error	10.659	40	.266		
Total	780.560	52			
Corrected Total	14.403	51			
^a R Squared = .260 (Adjusted R Squared = .056)	.000	0			
Error	8.452	33	.256		
Total	904.520	60			
Corrected Total	18.247	59			

Note. ^aR Squared = .537 (Adjusted R Squared = .172)

The two-way ANOVA was conducted to in order to determine whether there were any significant differences ($p < .05$) by years of experience and level of higher education on writing strategies. Table 18 shows the adjusted figures for the between-subject factors for writing strategies. Table 19 reveals that the independent variable or factor, years of experience, has some effect on the dependent, or outcome variable, of strategies of writing. The F -value of 4.680 is significant at ($p < .007^{**}$); the null hypothesis is rejected. It is reasonable to assume that strategies of writing can be attributed in some way to the number of years a teacher has been teaching. The F -value for the remaining independent variable, the type of certification the teacher has earned in higher education, is not significant. Additionally, the interaction between the variables was not significant. Therefore, we fail to reject the null hypothesis for this factor.

Table 18. Adjusted between-subjects factors for writing strategies.

	<i>n</i>	
B. Years of Experience	1.00	11
	2.00	17
	3.00	13
	4.00	12
C. Higher Education	4.00	16
	5.00	26
	6.00	11

Table 19. Two-way ANOVA tests of between-subjects effects (writing strategies).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	11.712 ^a	11	1.065	2.318	.025*
Intercept	216.403	1	216.403	471.069	.000
B. Years of Experience	6.450	3	2.150	4.680	.007**
C. Higher Education	.080	2	.040	.087	.917
B. Years of Experience C. Higher Education	4.998	6	.833	1.813	.120
Error	18.835	41	.459		
Total	343.313	53			
Corrected Total	30.547	52			

Note. ^aR Squared = .383 (Adjusted R Squared = .218). * $p < .05$. ** $p < .01$.

Summary statistics for the ANOVA results on the use of writing strategies by years of experience are reported in Table 20. To determine which groups differed from the rest, a Bonferroni post hoc test was performed to further examine significant main effects and possible interactions as shown in Table 21. Table 22 reports the results; $F(3, 58) = 5.46, p < .01$. The post hoc results revealed that teachers with 11 to 19 years of experience used writing strategies significantly more than teachers with 0 to 5 years of experience. There are no other statistically significant differences.

Table 20. Summary statistics for ANOVA results for strategies.

Source	SS	df	MS	F	Sig.
Between groups	9.177	3	3.059	5.459	.002**
Within groups	32.502	58	.560		
Total	41.678	61			

Note. ** $p < .01$.

Table 21. Bonferroni post hoc multiple comparisons (strategies).

(I) B. Years Exp.	(J) B. Years Exp.	(I-J) Mean Difference	SEM	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.69939	.26944	.072	-1.4354	.0367
	3.00	-1.13974*	.28366	.001*	-1.9146	-.3648
	4.00	-.70641	.28366	.094	-1.4813	.0685
2.00	1.00	.69939	.26944	.072	-.0367	1.4354
	3.00	-.44035	.25856	.563	-1.1467	.2660
	4.00	-.00702	.25856	1.000	-.7133	.6993
3.00	1.00	1.13974*	.28366	.001*	.3648	1.9146
	2.00	.44035	.25856	.563	-.2660	1.1467
	4.00	.43333	.27334	.710	-.3134	1.1800
4.00	1.00	.70641	.28366	.094	-.0685	1.4813
	2.00	.00702	.25856	1.000	-.6993	.7133
	3.00	-.43333	.27334	.710	-1.1800	.3134

Note. * $p < .05$.

Table 22. Summary statistics for ANOVA results on writing strategies use by years of experience.

	0-5 yrs. ($n = 13$)		6-10 yrs. ($n = 19$)		11-19 yrs. ($n = 15$)		20-29+ yrs. ($n = 15$)		F
	M	SD	M	SD	M	SD	M	SD	
Writing Strategies	1.83 ^b	.66	2.53 ^{ab}	.72	2.97 ^a	.86	2.53 ^{ab}	.74	5.46 ^{**}

Note. Means with the same letter are not statistically different as determined by the Bonferroni post hoc test. ** $p < .01$.

Adjusted Results for Part V

Eight additional two-way ANOVAs were conducted to determine if there were significant differences ($p < .05$) in any of the factors described above from Part V of the survey, using the same adjusted fixed factors as previously used in the two-way ANOVAs conducted for Part IV of the survey, years of experience or teacher certification. Table 23 shows the between-subjects factors for Factor 1, support student writing. Table 24 reveals that the F -values for each of the independent variables, years of experience and teacher certification, are not significant ($p < .05$). Additionally, the interaction between the variables is not significant. In other words, we fail to reject the null hypothesis for these factors. It cannot be concluded that the student support can be attributed to number of years a teacher has been teaching or the type of certification held by the teacher.

Table 23. Between-subjects factors for support student writing.

		<i>n</i>
B. Years of Experience	1.00	11
	2.00	18
	3.00	16
	4.00	13
C. Higher Education	4.00	21
	5.00	26
	6.00	11

Table 24 Two-way ANOVA tests of between-subjects effects (student support).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	16.915 ^a	11	1.538	1.212	.306
Intercept	926.649	1	926.649	730.374	.000
B. Years of Experience	2.628	3	.876	.691	.562
C. Higher Education	2.595	2	1.298	1.023	.368
B. Years of Experience	10.359	6	1.727	1.361	.251
C. Higher Education					
Error	58.362	46	1.269		
Total	1371.041	58			
Corrected Total	75.277	57			

Note: ^aR Squared = .225 (Adjusted R Squared = .039).

A second two-way ANOVA from Part V was conducted to determine if there were significant differences ($p < .05$) in Factor 2, *Teach Basic Writing Skills* by teacher certification or years of experience. Table 25 shows the between-subjects factors for Factor 2. Table 26 reveals that the F -values for each of the independent variables, years of experience and teacher certification, is not significant ($p < .05$). Additionally, the interaction between the variables is not significant. In other words, we fail to reject the null hypothesis for these factors. It cannot be concluded that teaching basic writing skills can be attributed to number of years a teacher has been teaching, or the type of certification the teacher has earned in higher education.

Table 25. Between-subjects factors for teaching basic writing skills.

	<i>n</i>	
B. Years of Experience	1.00	11
	2.00	19
	3.00	16
	4.00	13
C. Higher Education	4.00	20
	5.00	28
	6.00	11

Table 26. Two-way ANOVA tests of between-subjects effects (teach basic writing skills).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	18.452 ^a	11	1.677	.721	.713
Intercept	1485.585	1	1485.585	638	.000
B. Years of Experience	1.772	3	.591	.254	.858
C. Higher Education	1.913	2	.956	.411	.665
B. Years of Experience	17.175	6	2.863	1.230	.308
C. Higher Education					
Error	109.342	47	2.326		
Total	2105.600	59			
Corrected Total	127.794	58			

Note. ^aR Squared = .144 (Adjusted R Squared = -.056).

A third two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 3, *Teach Writing Process* by teacher certification and years of experience. Table 27 shows the between-subjects factors for Factor 3, teach basic writing skills. Table 28 reveals that the *F*-values for each of the independent

variables, years of experience and teacher certification is not significant ($p < .05$). In other words, we fail to reject the null hypothesis for these factors. Additionally, the interaction between the variables is not significant. It cannot be concluded that teaching the writing process can be attributed to number of years a teacher has been teaching, or the type of certification the teacher has earned in higher education.

Table 27. Between-subjects factors for teaching the writing process.

		<i>n</i>
B. Years of Experience	1.00	10
	2.00	19
	3.00	16
	4.00	13
C. Higher Education	4.00	20
	5.00	27
	6.00	11

A fourth two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 4, *General Instructional Procedures* by teacher certification or years of experience. Table 29 shows the between-subjects factors for Factor 4. Table 30 reveals that the *F*-values for each of the independent variables, years of experience and teacher certification is not significant ($p < .05$). In other words, we fail to reject the null hypothesis for these variables. Additionally, the interaction between the variables is not significant. It cannot be concluded that general instructional procedures can be attributed to the number of years a teacher has been teaching, or the type of certification the teacher has earned in higher education.

Table 28. Two-way ANOVA tests of between-subjects effects (writing process).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	37.577 ^a	11	3.416	1.371	.219
Intercept	1357.208	1	1357.208	544.518	.000
B. Years of Experience	12.798	3	4.266	1.712	.178
C. Higher Education	3.613	2	1.806	.725	.490
B. Years of Experience	30.276	6	5.046	2.024	.081
C. Higher Education					
Error	114.655	46	2.492		
Total	1965.889	58			
Corrected Total	152.232	57			

Note. ^aR Squared = .247 (Adjusted R Squared = .067).

Table 29. Between-subjects factors for general instructional procedures.

	<i>n</i>	
	1.00	11
B. Years of Experience	2.00	18
	3.00	16
	4.00	13
	4.00	21
C. Higher Education	5.00	26
	6.00	11

A fifth two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 5, *Promote Motivation* by teacher certification or years of experience. Table 31 shows the between-subjects factors for Factor 5. Table 32 reveals that the F -values for each of the independent variables, years of experience and teacher certification is not significant ($p < .05$). Additionally, the interaction between the

variables is not significant. In other words, we fail to reject the null hypothesis for these variables. It cannot be concluded that promoting motivation to write can be attributed to the number of years a teacher has been teaching, the type of certification they have, or the type of program where they work.

Table 30. Two-way ANOVA tests of between-subjects effects (general instructional procedures).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	26.111 ^a	11	2.374	1.175	.330
Intercept	1352.324	1	1352.324	669.166	.000
B. Years of Experience	11.518	3	3.839	1.900	.143
C. Higher Education	4.261	2	2.131	1.054	.357
B. Years of Experience	18.668	6	3.111	1.540	.187
C. Higher Education					
Error	92.962	46	2.021		
Total	1899.333	58			
Corrected Total	119.073	57			

Note. ^aR Squared = .219 (Adjusted R Squared = .033).

Table 31. Between-subjects factors for promote motivation.

	<i>n</i>	
	1.00	11
B. Years of Experience	2.00	16
	3.00	16
	4.00	13
	4.00	20
C. Higher Education	5.00	25
	6.00	11

Table 32. Two-way ANOVA tests of between-subjects effects (promote motivation).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	19.252 ^a	11	1.750	1.220	.303
Intercept	1334.164	1	1334.164	929.778	.000
B. Years of Experience	2.777	3	.926	.645	.590
C. Higher Education	3.215	2	1.608	1.120	.335
B. Years of Experience	17.182	6	2.864	1.996	.087
C. Higher Education					
Error	63.137	44	1.435		
Total	1804.000	56			
Corrected Total	82.388	55			

Note. ^aR Squared = .234 (Adjusted R Squared = .042).

A sixth two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 6, *Assessment* by teacher certification and years of experience. Table 33 shows the between-subjects factors for Factor 6. Table 18 reveals that the F -values for the independent variables, years of experience and teacher certification. Table 34 reveals that the independent variable or factor, years of experience, has some effect on the dependent, or outcome variable, assessment. The F -value of 2.844 is significant at ($p < .020^*$); the null hypothesis is rejected. It is reasonable to assume that assessment can be attributed in some way to the number of years a teacher has been teaching. However, when the Bonferroni post hoc was conducted, the results were not significant and did not indicate which categories were significantly higher than the others. The F -value for the remaining independent variable, teacher certification, is not significant nor is the interaction. It cannot be concluded that

assessment of writing can be attributed to the type of certification earned in higher education. Therefore, no further tests were performed.

Table 33. Between-subjects factors for assessment.

		<i>n</i>
B. Years of Experience	1.00	10
	2.00	18
	3.00	16
	4.00	13
C. Higher Education	4.00	21
	5.00	25
	6.00	11

Table 34. Two-way ANOVA tests of between-subjects effects (assessment).

Source	Type III SS	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Corrected Model	42.493 ^a	11	3.863	1.812	.080
Intercept	547.221	1	547.221	256.639	.000
B. Years of Experience	4.964	3	1.655	.776	.514
C. Higher Education	8.253	2	4.126	1.935	.156
B. Years of Experience C. Higher Education	36.383	6	6.064	2.844	.020*
Error	95.952	45	2.132		
Total	904.778	57			
Corrected Total	138.444	56			

Note. ^aR Squared = .307 (Adjusted R Squared = .138). **p* < .05.

Table 35. ANOVA results for assessment.

Source	SS	df	MS	F	Sig.
Between groups	1.911	3	.637	.251	.860
Within groups	159.542	63	2.532		
Total	161.453	66			

A seventh two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 7, *Home Environment* by teacher certification and years of experience. Table 36 shows the between-subjects factors for Factor 6. Table 37 reveals that the *F*-values for each of the independent variables, years of experience and teacher certification, is not significant ($p < .05$). Additionally, the interaction between the variables is not significant. In other words, we fail to reject all of the null hypotheses. It cannot be concluded that home environment can be attributed to the number of years a teacher has been teaching, or the type of certification earned in higher education.

Table 36. Between-subjects factors for home environment.

		<i>n</i>
	1.00	11
B. Years of Experience	2.00	19
	3.00	16
	4.00	13
C. Higher Education	4.00	21
	5.00	27
	6.00	11

Table 37. Two-way ANOVA tests of between-subjects effects (home environment).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	32.985 ^a	11	2.999	1.418	.197
Intercept	592.336	1	592.336	280.052	.000
B. Years of Experience	7.844	3	2.615	1.236	.307
C. Higher Education	7.597	2	3.799	1.796	.177
B. Years of Experience	22.918	6	3.820	1.806	.118
C. Higher Education					
Error	99.409	47	2.115		
Total	872.750	59			
Corrected Total	132.394	58			

Note. ^aR Squared = .249 (Adjusted R Squared = .073).

A final two-way ANOVA was conducted to determine if there were significant differences ($p < .05$) in Factor 8, *Extend Writing to Content Areas* by teacher certification and years of experience. Table 38 shows the between-subjects factors for Factor 6. Table 39 reveals that the F -values for the independent variables, years of experience and teacher certification, are not significant ($p < .05$). Additionally, the interaction between the variables is not significant. In other words, we fail to reject all the null hypotheses for this factor. It cannot be concluded that extending writing to the content areas can be attributed to the number of years a teacher has been teaching or the type of certification they have earned in higher education.

Table 38. Between-subjects factors for extending writing to the content areas.

	<i>n</i>	
B. Years of Experience	1.00	10
	2.00	19
	3.00	16
	4.00	13
C. Higher Education	4.00	21
	5.00	26
	6.00	11

Table 39. Two-way ANOVA tests of between-subjects effects (extending writing to the content areas).

Source	Type III SS	df	MS	F	Sig.
Corrected Model	25.436 ^a	11	2.312	1.129	.362
Intercept	1106.065	1	1106.065	539.994	.000
B. Years of Experience	.777	3	.259	.126	.944
C. Higher Education	3.502	2	1.751	.855	.432
B. Years of Experience C. Higher Education	23.387	6	3.898	1.903	.101
Error	94.221	46	2.048		
Total	1606.556	58			
Corrected Total	119.657	57			

Note. ^aR Squared = .213 (Adjusted R Squared = .024).

Discussion

The purpose of the current study was to examine writing activities through an investigation of teacher perceptions of writing use and frequency in prekindergarten. Findings from the 75 teachers who completed the survey revealed wide variability in responses.

Writing Activities

The writing activities most frequently used in the classrooms were: (a) students write with some success the letters (though not necessarily well-formed) in their first names; (b) students participate in copying letters or shapes (0, X, +) using a variety of writing tools; and (c) students sign their names on sign-in sheets/art work. Descriptive statistics revealed that teachers provide opportunities for their students to write their names, copy letters, numbers, or shapes, use a variety of writing tools, and sign their names on sign-in sheets, art work, graphs, letters, and lists.

Activities by time. Teachers perceived that they spent the most time on teaching handwriting and capitalization; students spent the most time on working at writing centers.

Stage of writing. The majority of students, according to their teachers, were performing at a Stage 2, nonphonetic and semiphonetic spelling, at midyear in prekindergarten.

Statistically Significant Differences

The lack of significant statistical differences reveals that writing practices and usage covered the range of the continuum from almost always to almost never in this study.

Several areas of the current study are worthy of discussion. Part IV of the survey was specifically developed to include topics of consideration that specifically related to prekindergarten using a variety of known sources on writing (e.g., Pinnell & Fountas, 2011; Schickedanz & Casbergue, 2008; Texas Prekindergarten Guidelines, 2008). Of these highly recommended writing practices, teachers reported only a few that occur almost always in their classrooms, indicating that writing is addressed in prekindergarten, but it is most likely not on the daily agenda. Four out of the top five strategies involved procedural tasks, that is, tracing or copying letters or words and writing their names. However, in the top 10 skills, four involved teacher modeling of shared or interactive writing (including the Morning Message and the Daily News), from which children learn through watching adults that print conveys meaning and that writing is a means of communication. Two of these top ten, albeit ninth and tenth on the list, were conceptual skills, where children use writing to make meaning of their own through the use of drawing and writing to tell a story or scribbling a list.

From Part V of the survey, written originally for an investigation of writing with primary teachers (Cutler & Graham, 2008), the only item recorded by 90% of the teachers in the current study was that their students would participate in drawing a picture and writing something to go with it during the course of the school year. This

supports what the teachers indicated in Part IV, that drawing and writing are important to include in the overall prekindergarten agenda, but not important enough to include *almost always*. On the other hand, in this section, fewer teachers indicated that their students would engage in copying text (82.7%), whereas this was the most common item checked in Part IV. It is possible that differences in reporting may relate to the discrepancies found by researchers in relation to self-reporting perception studies (e.g., Bos, et al., 2001; Cunningham, et al., 2004).

Descriptive statistics on Part V on the most frequently employed strategies to support student writing showed that the teacher spends instructional time in teaching her students in handwriting skills and capitalization skills, provides opportunities for the students to work at writing centers, reads her own writing to students, and encourages the students to use invented spellings.

The most surprising finding from Part IV was the lack of substantial home-school connections to support writing development. The majority of the participants indicated that they almost never send home class books, writing materials and tools, or books in a child's native language. This is particularly disconcerting in light of the research on the importance of the home environment (Dickinson & Tabors, 2002; Farver, et al., 2006; Magruder, et al., 2013), particularly maternal mediation, which was found to be significant to a child's literacy development through second grade (Aram & Levin, 2004). However, it should be noted that in Part V, over 50% of the teachers indicated that they sent home writing homework and encouraged children to write at home on a weekly basis. Perhaps when viewing homework from the lens of their own

efforts to involve families in writing, teachers rated this item higher than they did on specific types of activities, as they were listed in Part IV.

Writing in young children, when compared with reading, has been identified as a gap in research. Children need reading to have experiences with rich texts that will build their love of words, book language (such as, “happily ever after”), and their sense of story sequence. Children need writing to support reading, to experiment with words and their potential power in a story, and to express their creativity. Without guidance from research on ways to implement writing in the classroom, there is a concern that these foundational years are missing the mark on how to best channel children’s time and efforts on their emergent literacy path that will support reading and writing. It is possible that the lack of focus on writing in prekindergarten effects their later development in writing. A need for additional research-based approaches on how to improve the specific use of writing in prekindergarten exists. The current study, however, provides some evidence on what teachers are currently providing in their classrooms and the degree of implementation of these strategies, which can be the springboard for planning professional development and coaching, as well as future research.

CHAPTER III

INVESTIGATING WRITING ACTIVITIES AND WRITING ARTIFACTS IN PREKINDERGARTEN THROUGH CLASSROOM OBSERVATIONS

In an age of accountability defined by ever-increasing academic performance demands, researchers, parents, educators, and policy-makers are perplexed about what prekindergarten programs should look like and what the effect that increased rigor will have on young children (Justice & Vukelich, 2008). The result has been a vast diversity between programs across the nation, often driven by the way in which readiness for kindergarten is defined (Ackerman & Barnett, 2005). Policy-makers are left with the charge of finding ways to accurately define high-quality programs that are sensitive to the needs of young children and are not simply watered-down versions of what is expected for an older child (Gutierrez, Zepeda, & Castro, 2010). More research-based information on the particulars of classroom instruction is needed, particularly for children who are learning English as a second language (Hammer, Jia, & Uckikoshi, 2011).

There is little argument that high-quality prekindergarten programs can significantly impact the disparity in achievement that often exists between children who enter kindergarten (Castro, Páez, Dickinson, & Frede, 2011; Hart & Risley, 1995; Justice & Vukelich, 2008). Recent research contends that children are more likely to enter kindergarten equipped with the tools they need to be successful readers and writers when they attend prekindergarten programs that help them develop basic foundational skills in language and literacy (Ballantyne, Sanderman, D’Emilio, & McLaughlin, 2008;

Magruder, Hayslip, Espinosa, & Matera, 2013). Head start programs and universal preschool programs around the United States point to the important role that these programs can potentially play in preparing young English language learners for later success in school and for eliminating the readiness gap (Barone & Xu, 2008; Castro, et al., 2011).

However, research also indicates that the contrary is often the case; young ELLs are at risk for poor educational outcomes (Hammer, Jia, & Uchikoshi, 2011; National Task Force on Early Childhood Education for Hispanics, 2007). Moreover, there has been a limited understanding from research on how to improve programs for young ELLs, beyond the premise that oral language serves as the foundation for early literacy development and is central to the development of various skills, such as, phonological and phonemic awareness, letter knowledge, concepts of print, vocabulary development and the process of writing (Dickinson, McCabe, Clark-Chiarelli, & Wolf, 2004; Dickinson & Sprague, 2001; Dickinson & Tabors, 2002).

Teachers in the field are often the first to find practices that work well for their ELLs by trying new strategies and concrete ideas to enhance development and learning (Alanis, 2013; Facella, Rampino, & Shea, 2005). In early childhood, teachers often begin with developmentally appropriate practices, which comprise three basic understandings about young children: how children learn, where the child's strengths and needs fall along the continuum for learning specific skills, and the child's socio-cultural context for learning and growing (Coppole & Bredekamp, 2009; Owocki, 1999). High-quality teachers advocate for the development of the child's first language,

understand the stages of second language acquisition, provide strategies for enhancing the development of English, and keep up-to-date on trends in research for ELLs (Espinosa, 2008, 2013; Facella, et al., 2005; Macrina, Hoover, & Becker, 2009; Tabors, 2008). Because of their role as change makers in society, teachers need adequate professional development and coaching to support their search for appropriate strategies.

In their study to investigate effective strategies teachers use in promoting language development and why these strategies worked, Facella and her colleagues (2005) found that the named strategies by the 20 teachers, prekindergarten to grade 2, fell into three broad categories, strategies for: engaging learners emotionally, teaching language specifically, and teaching in general. Gestures and visual cues, repetition and practice, use of authentic props, and multisensory strategies were named by the majority of teachers as being effective for teaching in general. Prekindergarten teachers (in particular) named thematic units, which provide multiple ways for children to interact with content, as another effective strategy.

Similar to the Facella et al. (2005) study mentioned above, teachers enhance English language acquisition by emphasizing newly acquired language skills in a range of social exchanges, such as, using thematic words, pairing them with a prop, gesture or action, writing words to songs and chants on chart paper, and providing ample practice in saying these words (Macrina, et al., 2009). Another related study investigated writing in an integrated curriculum, which like thematic learning provides an opportunity for content to be embedded in social and cultural contexts that are meaningful to the children (Genishi, Stires, & Yung-Chan, 2001). Also like providing a concrete prop in

the previous studies, Genishi and colleagues described the use of symbols, defined as objects or signs that carry meaning, which were used by the teacher in their study to provide ways for children to gain entry into literacy.

Advocates for the mutually reinforcing nature of reading, writing, and oral language skills in young ELLs encourage educators to use oral language to support reading and writing, and reading and writing to support oral language development (California Department of Education, 2009; Gutierrez, Zepeda, & Castro, 2010; Macrina, Hoover, & Becker, 2009; Strickland & Riley-Ayers, 2006; World Class Instructional Design and Assessment Consortium, 2013). While educators are beginning to have in their hands helpful tools, including strategies and tangible ideas for helping ELLs in their classrooms succeed in oral language development, written language is rarely used to support oral language, as it was in the classroom described by Macrina and her colleagues. Because research is more frequently reporting on the simultaneous acquisition of oral proficiency and second-language literacy (Castro, et al, 2011), it is possible that binding written language with oral language development through multiple exposures and layers has potential for developing literacy in ELLs.

Concerns with Previous Research

Current research on high-quality prekindergarten programs focuses mostly on aspects of language development and foundational reading skills, such as motivation to read, phonological awareness, and letter knowledge, as well as the interactions that take place between teachers and children during instruction. As the conversation slowly moves toward the importance of writing in prekindergarten, a gap in the research is

evident. Therefore, one of the aims of this study is to contribute to the research on what typically happens in prekindergarten programs related to writing by investigating writing practices and writing artifacts to determine the opportunities that are available for prekindergarten children. Knowledge of current practices, as discovered through observational research, will be the springboard for developing professional development and coaching. Unlike previous observation studies, which are commonly used in prekindergarten to investigate a myriad of practices, this is one of the few observation studies to investigate writing practices and writing artifacts. As such, the present study extends previous research by conducting systematic classroom observations in prekindergarten classrooms and focuses on the area of writing.

Due to national attention in the last 10 years, numerous studies have focused on promoting academic abilities of preschool-aged ELLs and effective instructional strategies to support them (Hammer, Jia, & Uckikoshi, 2011; National Task Force on Early Childhood Education for Hispanics, 2007). Even with this increased attention, a limited understanding of the needs of this population in the area of language and early literacy development persists. While Hammer and colleagues (2011) provide a research agenda to improve educational outcomes of children learning two languages, studies still show that even with gains in language and literacy skills, young ELLs are still behind their monolingual peers at the end of their preschool year. Moreover, Hammer, et al. report that few studies have investigated the relationship between oral language and literacy in young ELLs. This is a particular concern of the current study, in that little research has been done to investigate the relationship between oral language and written

language, or to investigate any advantages children who have been provided with writing opportunities have over those who have not had those opportunities.

One of the aims of this study is to contribute to the research on what typically happens in prekindergarten programs as children develop early literacy skills, particularly writing, with a focus on programs that serve a large number of Latino English language learners. A mechanism to find out what happens in prekindergarten programs and for ensuring positive child outcomes is to conduct a systematic classroom observation that measures the quality of the classroom environment (Grinder, 2007). Pianta (2003) suggests that individual child assessment outcomes are often dependent on the quality of experiences in family and educational settings. Family settings for young Hispanics are characterized by lower parent education levels, higher poverty rates, higher numbers of single parent homes, and a larger percentage of children who are ELLs (National Task Force on Early Childhood Education for Hispanics, 2007). Robust, high-quality programs can contribute to higher levels of school readiness and school achievement, particularly in programs for infants/toddlers, and in prekindergarten and primary programs for low SES Hispanics (National Task Force on Early Childhood Education for Hispanics, 2007). Prekindergarten teachers, who want to know how to create and sustain high-quality programs, deserve guidance through professional development and coaching.

Classroom Observations

Investigating classroom practices through systematic observation has been common in school districts for the past several decades (Pianta & Harme, 2009;

Waxman & Padrón, 2004). A classroom observation tool that focuses on established standards of teaching excellence, such as authentic and interactive components of instruction, can potentially help a teacher improve classroom practices (Waxman, Hilberg, & Tharp, 2004). Moreover, effective tools can help to identify shortcomings in educational services (Pianta, 2003). Classroom observations can be useful as formative measures of evaluation, especially for the purposes of planning professional development or designing a coaching plan with the teacher. Through a systematic classroom observation, instructional practices can be summarized and inequities toward linguistically and culturally diverse populations can be investigated (Waxman, et al., 2004).

Current methods of observation, which are highly quantitative in nature (that is, focusing on duration, intensity, and frequency of behaviors), may miss important nuances of the classroom or instructional variables. When highly qualitative, an observer may focus specific isolated behaviors, such as the teacher's demeanor or interaction with her students, and pay less attention to specific instructional behaviors or ignore the students' interactions with the teacher. Behaviors that occurred before or after the observation, which may have affected the context or meaning of the observed behaviors during the observation, are often ignored. The observer may form judgments or make inferences about specific practices. An instructional coach, for example, hoping to help a teacher take her next steps toward success, may primarily focus on the teacher's best characteristics. While this approach may assist in establishing rapport and

credibility, it may be lacking in consideration of the whole picture, reveal bias toward the teacher, and more importantly, ignore the needs of the students.

An observer with adequate background knowledge and skills on the appropriate ways to teach language instruction to ELLs could potentially be very effective in conducting an observation in a bilingual classroom. An observer without this knowledge may not notice when ineffective instructional methods for ELLs are being used. An observational instrument that helps to analyze the learning experiences of ELLs at the student, teacher, and classroom levels, can level the playing field for observers by improving the accuracy of protocols in evaluating instruction (Waxman, Padrón, Franco-Fuenmayor, & Huang, 2009).

The simultaneous use of qualitative and quantitative methods of observation can be helpful in examining changes in the teaching process. Quantitative methods, when balanced with qualitative methods, such as rich details and meaning-centered descriptions, provide a more complete picture of the teaching process. Moreover, when tools focus only on the teacher behaviors without investigating the reciprocal impact of teacher-child interactions, the results may overlook the true issues in the classroom. When an observation tool also looks at the manner in which the students respond to the teacher and to the instruction, as well as the way the teacher responds to the students and adjusts instruction, additional benefits impacting student learning can be seen (Waxman & Padrón, 2004). Thus, the argument presented by the student-mediating paradigm suggests that student perceptions and reactions to learning tasks and instruction in the classroom may be more impactful in influencing student outcomes than the observed

quality of behaviors exhibited by the teacher during the instruction (Waxman, Hilberg, & Tharp, 2004).

The presence of an observer may in some way alter the teacher's typical manner of interacting with her students or may change the way the teacher introduces the content, providing an inaccurate analysis of the teacher's performance. In addition, an observation solely focused on the teacher may be intimidating to the teacher. The observation protocol used in the current study focuses briefly on the teacher, followed by a focus on the students, and then repeats this sequence about five times. At the end of the observation time, the observer notes the extent to which particular activities were used or demonstrated during the observation period. An approach, such as the one used in this study, is less likely to cause a teacher to feel that he or she is in the spotlight. As a result, the observation may lend itself to more accurate picture of what usually happens in the classroom. With the addition of the overall classroom observation, behaviors not seen during the observation of the teacher or the student may additionally be captured.

The Classroom Observation Schedule (COS) is one of several tools for systematically observing the teacher, the students, and the environment within the context of classroom processes (Waxman & Padrón, 2004). The teacher is observed for thirty seconds and the observed behaviors are recorded on an observation sheet. The observer then watches behaviors, settings, and interactions of several children, randomly selected and often stratified by student attributes, such as gender, ethnicity, and language-usage. Each child is observed for 30-second intervals, one at a time, and the observer records the observations on each child's protocol. This same process is

repeated for several sequences. At the end of the lesson, the environment is analyzed on a third recording sheet.

The present study uses an adapted version of the COS by including a section in both the teacher observation tool and the overall observation tool on writing in prekindergarten. The intent of the second study was to investigate writing practices in prekindergarten classrooms within the context of observations of classroom settings and activity types. Concurrently, teacher interactions, student behaviors, and teacher instructional practices, as well as the extent that activities occur within the overall classroom environment, were observed. Teacher guidance, student engagement in nurturing activities, and a well-designed environment are key features of a prekindergarten classroom (Lara-Cinisomo, Fuligni, Daugherty, Howes, & Karoly, 2009; Neuman & Roskos, 2007). Lara-Cinimoso and colleagues (2009) specifically named types of teacher-child interaction, children's learning environment, and types of learning opportunities as the nature of classroom experiences that were believed to best prepare children for kindergarten.

The current study examined the writing practices of prekindergarten teachers as a part of an observation of teacher instruction, student engagement, and the prekindergarten classroom environment. Unlike previous observation studies, this is the one of a few studies to investigate writing practices in prekindergarten. This study goes beyond a self-report survey, where the teacher would be the sole evaluator in his or her classroom practices, to a multi-faceted observation. Goe, Bell and Little (2008) caution that self-report surveys should not be used in isolation when evaluating teacher practices,

as reliability and validity of this method of data collection is not fully established. Supplementing self-report measures with observations of classroom practices may increase the accuracy of the results (Cutler & Graham, 2008; Goe, Bell, & Little, 2008).

Research Questions

The following research questions guide this study:

1. To what extent do prekindergarten teachers provide writing opportunities in their classrooms?
2. What types of writing artifacts can be seen during observations of the classroom environment?
3. Are there significant differences ($p < .05$) in student engagement in writing experiences by gender and ethnicity?
4. Are there significant differences ($p < .05$) among educational use of writing by type of program (urban, suburban, rural, or private)?
5. Are there significant differences ($p < .05$) among classroom practices of writing by classroom setting (whole class, small group, dyads, individual, traveling, and other) and student engagement?

A complete discussion of the research methods, including setting, participants, and instrumentation is included in the methods section of this chapter.

Review of Research

This section of Chapter III presents a comprehensive review of research on two important areas related to this study: observational studies and ELL research. Because the current study uses an observational study, (see Appendix C, *Observational Studies in*

Prekindergarten) a small sampling of observational tools most commonly used in research in prekindergarten are provided. Appendix D, *Research on Supporting Writing in Young ELLs* concentrates on presenting specific research related to supporting ELLs in prekindergarten programs from Spanish-speaking homes in the area of writing, which is a growing area of necessity in the state of Texas.

Observational Studies in Writing

In this section, research articles which address observational studies in prekindergarten were investigated in relation to the current study. A significant and pressing challenge for prekindergarten teachers is to understand the types of classroom environments, teacher instructional practices, and student engagement that would best meet the needs of young children. Moreover, administrators of prekindergarten programs are interested in discovering what comprises a high-quality program. This is particularly true of administrators and teachers of children from diverse backgrounds, such as Latino children and other groups of dual language learners, for whom gaps in achievement are prevalent. As a result, observational research can be very helpful in identifying areas of need. Because observational research is often used along with other methods to capture a more complete picture of classroom activities, the research in the first part of this section highlights studies addressed in other sections of this study viewed from a different lens; this time with a focus on observational research. The second group of studies discussed in this section discuss specific observational tools used in classrooms for young children (Downer, Lopez, Grimm, Hamagami, Pianta, & Howes, 2012; Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, Burchinal, & Early,

2008; Phillips, Gormley, & Lowenstein, 2009; Preschool Curriculum Evaluation Research Consortium, 2008; Wayne, DiCarlo, Burts, & Benedict, 2007).

Observational tools from studies addressed in relation to teacher

perceptions. Primarily studies on teacher perceptions (see Appendix A), several researchers also employed observational research (Hovland, Gapp, & Theis, 2011; White, 2013). Hovland, et al. (2011) utilized observational research of two prekindergarten and two kindergarten classrooms to determine how the teacher assisted students in learning to look at print. The results of the questionnaire were compared with the classroom observations; findings indicated that teachers focused on instructional activities that were primarily reading-related (e.g., teachers helped their students learn to look at print by pointing out the specific features of letters). However, writing was overlooked during the observations as a way to support looking at print, even though the teachers had indicated in their questionnaires several ways to use writing to support looking at print. Because it is common for writing to be overlooked during classroom observations, a tool that focuses specifically on writing, such as the one used in the current study, seems to be the key to ensuring that writing is considered as an important literacy event in prekindergarten.

An observational research study, similar to the current study, used 30-second observations of the teacher's interactions with her students, recorded as interactive or didactic, during a 20-minute block of time (White, 2013). Regardless of the group size, teachers were considered to be interactive if the children were actively involved in a discussion, or if the teacher encouraged the student's participation in the lesson.

Teachers were recorded as didactic if there was no active participation on the part of the students; the teacher was lecturing on a topic and students were expected to pay attention and listen. Nothing was recorded for a particular pass if the teacher was not involved with the students. White's study supports the use of observation research to investigate specific components of the classroom environment. Unlike White's study, the current study investigated interacting components of the classroom, the teacher, the students, and the classroom environment to investigate educational use of writing and writing artifacts.

In a previous section (see Appendix B), it has already been noted that Clark and Kragler (2005) conducted observations of the literacy environment to accurately represent the types of activities and materials that were available in the classroom. Classroom observations to record literacy materials present in the classroom, and to examine the children's involvement in literacy activities, were conducted throughout the school year. Activities were designated as child-initiated or teacher-directed, where activities in which a child retrieved a literacy material from a classroom shelf were considered child-initiated. Activities in which the teacher placed specific items on the tables for the children to explore were considered teacher-directed, as were small and large group activities directed by the teacher and print displayed by the teacher. Qualitative findings revealed that more literacy activities and materials were available in the spring in the classrooms observed; however, quantitative findings did not show an increase in early literacy behaviors. The authors posit that simply adding materials and activities does not bring about the desired changes. Changes are dependent upon the

teacher's willingness to implement the suggested strategies, which was inconsistent in the classrooms in their study (Clark & Kragler, 2005). The current study investigates an environmental component as well, namely the types of writing artifacts that can be found in the classroom. The presence of these writing artifacts (such as class books or child-created books) may indicate that the teacher has provided some instruction on writing. However, as Clark and Kragler (2005) caution, it would be necessary to actually observe the teacher implementing the desired strategy to see the relationship to the children's use of the strategy. The study by Clark and Kragler is similar to the current study in that it investigates opportunities for prekindergarten children to intentionally experiment with writing, that is, with a combination of child-initiated and teacher-directed strategies that are supportive in nature.

In their study to evaluate the effects of the Nuestros Niños professional development program on classroom practices and child outcomes related to English and Spanish language development and early literacy skills, Buysse and her colleagues (2010) used the Early Language and Literacy Classroom Observation (ELLCO), a standardized measure used to assess the quality of the classroom practices (See Appendix D). The ELLCO contains three subscales: the classroom observation scale (14 items rated on a 1–5 scale), the literacy environment checklist (24 items scored as yes or no, or number of occurrences), and the literacy activities rating scale (nine items scored as yes or no, or the number of occurrences). In 2005, Castro developed the ELLCO Addendum to assess practices specifically targeted for young children whose first language was not English (Castro, 2005). The inclusion of this observational tool

highlights the importance of considering the needs of diverse populations in the selection of tools of observation.

Observational studies in prekindergarten. The most recent extensive review of literature on the use of observational studies in prekindergarten has been conducted by Bryant (2010), who provides a review of commonly used assessments, changing trends in their usage, and how they are related to each other and to child outcomes. An example of changing trends in usage of tools is in the study by Wayne, et al. (2007) who created an intervention based on the results of the observation of preschool literacy materials in the classroom. Once used solely for research purposes, observation tools are also being used to generate ideas for important improvements in the classroom and are a key tool used during coaching of literacy practices.

Bryant lists 11 early childhood classroom observations that look globally at classroom quality or dimensions of quality. Three of these tools are also summarized in Appendix C, *Observational Studies in Prekindergarten*, which also includes research on studies that use four of these same tools: Early Language and Literacy Classroom Observation (ELLCO; Smith, Brady, & Anastasopoulos, 2008), the Early Childhood Environmental Rating Scale (ECERS; Harms, Clifford, & Cryer, 1998; 2004), Child Engagement section of the Emerging Academics Snapshot or CE-EAS (Ritchie, Howes, Kraft-Sayre, & Weiser, 2002), and the Classroom Assessment Scoring System (CLASS; Pianta, LaParo, & Hamre, 2008). An additional tool included in Appendix C, but not included in the Bryant (2010) review was NIEER's quality indicators (Mashburn, et al., 2008).

As reported by Philips, Gormley, and Lowenstein (2009), observational studies are helpful in detecting the many challenges that remain in distinguishing classroom and teacher attributes that contribute to high-quality, educationally-rich prekindergarten environments. Oklahoma's pre-kindergarten program is known a leader in providing universal access for all. As a neighboring state with a strong investment into the lives of many children in prekindergarten and an expectation for high-quality programs, Texas has reason to investigate the types of early learning and positive behavioral outcomes that occur there. The study by Phillips, Gormley, and Lowenstein (2009) used two observation tools, one for the instructional and emotional outcomes in the classroom and the other to capture the type of academic instruction that takes place in the classroom. The former tool, the CLASS, has been previously described in relation classroom quality in the study by Downer, López, Grimm, Hamagami, Pianta, and Howes (2012). The latter tool, CE-EAS (Child Engagement section of the Emerging Academics Snapshot) captures how well academic instruction is addressed in the classroom (Ritchie, Howes, Kraft-Sayre, & Weiser, 2002).

The observational studies used in the Preschool Curriculum Evaluation Research Consortium (2008) collected two pre-intervention classroom measures and three post-intervention classroom measures. The ECERS-R provided a measure of quality and organization of the classroom (Harms, Clifford, & Cryer 1998). The teacher-child interactions were measured on four scales, including positive interactions, harshness, detachment, and permissiveness, of the Arnett Caregiver Interaction Scale (Arnett, 1989). Both of these measures were conducted in the fall of 2003. The Teacher

Behavior Rating Scale (TBRS), a post-intervention measure given in the spring of 2004, (Landry et al. 2002) investigated preschool instructional practices, such as written expression, print and letter knowledge, phonological awareness, book reading, oral language use, and mathematics concepts.

One study listed in *Appendix C* specifically addresses whether or not an observation tool used in classrooms of English-speaking children would also be effective in classrooms of Spanish-speaking children (Downer, López, Grimm, Hamagami, Pianta, & Howes, 2012). Researchers conducted CLASS observations of teacher–child interactions in 721 state-funded pre-k classrooms across 11 states to determine if the CLASS measure applied equally across different proportions of dual language learners. They found that the CLASS measure works equally well in dual language and monolingual classrooms, predicting outcomes for both populations with equal validity. In spite of these advantages, Vitiello (2013) cautions that the instrument does not address cultural competence, cultural sensitivity, or strategies specifically designed for teaching dual language learners, thus additional instruments should be sought out to supplement the CLASS when these aspects are being investigated.

Summary of Appendix C

Although this section does not provide a great deal of additional information on writing in prekindergarten, it does provide insight into the importance of observational tools as part of research studies and the importance of choosing the right tool for both efficiency and utility. High-quality teacher-child interactions during instruction were consistently found to be of great importance in studies (Downer, et al., 2012; Mashburn,

et al., 2008). One could hypothesize that these interactions are important during a child's attempts at writing. Also important for early literacy development was the use of literacy props (Wayne et al., 2007). As such, the observational tool used in this study provides an opportunity for the observer to focus on both the teacher-child interactions and the use of literacy props or artifacts available for student-choice in the classroom environment for increasing the educational use of writing.

Research on Supporting Writing in Young ELLs

Research perspectives on the characteristics of successful ELL programs, and the effects of specific instructional practices on academic outcomes for young ELLs, typically of elementary-aged students, have been addressed by several research syntheses (August & Shanahan, 2006a; Genesee, Lindholm-Leary, Saunders, & Christian, 2006; Gersten, Baker, Shanahan, Linan-Thompson, Collins, & Scarcella, 2007; Dixon, Zhao, Shin, Wu, Su, Burgess-Brigham, Gezer, & Snow, 2012; Goldenberg, 2008; Slavin & Chaung, 2005). Children under the age of five, however, who are ELLs are often referred to in the literature as Dual Language Learners (DLLs) because they are developing two languages at the same time, their first or home language and a second language, during a critical period of their development (Castro, Garcia, & Markos, 2013; Nemeth, 2012). Because the majority of research reported in this section uses "DLLs" as their preferred terminology, this section will do the same. It should also be noted that for Latino children, their first language may actually comprise two languages, including Spanish and the language of their home country, which may slightly vary in meaning and pronunciation in comparison to Spanish. This section will begin with a discussion

on these syntheses, followed by a discussion of a few of the research brief on working with DLLs. The remaining section of the review of research will discuss the articles included in Appendix D.

Research Syntheses on ELLs/DLLs

Children under the age of five who are ELLs are often referred to in the literature as Dual Language Learners (DLLs) because they are developing two languages at the same time, their first or home language and a second language, during a critical period of their development (Burchinal, Field, Lopez, Howes, & Pianta, 2012; Castro, Garcia, & Markos, 2013; Nemeth, 2012). For Latino children, their first language may actually comprise two languages, including Spanish and the language of their home country, which may slightly vary in meaning and pronunciation in comparison to Spanish. However, for consistency in use throughout the current study, “young ELL” terminology will be used in this section, in addition to the use of DLL, as noted in the particular article under investigation.

Slavin and Cheung (2005) conducted a research synthesis on the language of reading instruction for ELLs (bilingual or English-only) in an effort to inform and provide the research community, practitioners, and policymakers with standards of consistent and clear evidence related to the role of a child’s native language in reading instruction. Their synthesis was in response to the frequent debates on this issue, as well as the movement of some states toward removal of bilingual programs in favor of English-only programs. They report that advocates of bilingual programs argue for the need for native language instruction so that students do not lose their proficiency in their

native language or fail to learn to read in their native language. On the other hand, advocates for English-only programs argue that bilingual programs delay English language development, relegating students to a separate, second-class status.

In their review of literature, Slavin and Cheung describe English immersion programs (where English is almost exclusively the language of instruction) and bilingual programs (where significant amounts of instruction are provided in the child's native language). Bilingual programs may be characterized as early or late exit, depending upon the number of years before children are transitioned to English-only programs, or may be called, paired bilingual models (also called dual language programs), where children read in English and in their native language at designated times of the day or week. Conflicting research and inherent problems with research studies, as well as a lack of quantitative studies, compound the problem. Slavin and Cheung list numerous issues associated with research studies: problems regarding the ages of the children, the length of time they have been taught in their first language versus English, problems with pretesting, numerous sources of selection bias, and a lack of adequate description of the programs being investigated. They concluded that there were too few high-quality studies that investigated differences between English immersion and bilingual programs. However, in 12 out of 17 studies of all types, they found effects favoring bilingual programs, with none favoring English-only. As a result of their synthesis, researchers highlighted the need for both qualitative and quantitative studies to illuminate how to best instruct children developing English reading skills.

In related research, Hammer, Davison, Lawrence, and Miccio (2009) investigated what is known about language and literacy development in young DLLs in order to put forth a proposed agenda to improve outcomes for DLLs. They found that when parents increased the usage of L2 in the home, neither their L2 vocabulary nor their L2 literacy development increased, but rather slowed down their L1 vocabulary usage. While the second language may take time to develop to the same proficiency as the first language, the second language will develop with teachers who are proficient in their students' first language and with those who use effective strategies to support developing DLLs (Barnett, Yarosz, Thomas, Jung, & Blanco, 2007; Dixon, et al., 2012; Hammer, et al., 2009).

Research has consistently reported that the development of two language systems can potentially strengthen the language development in a second language (Hammer, Jia, & Uchikoshi, 2011; Hammer, Lawrence, & Miccio, 2008). Similarly, Dixon and colleagues (2012) synthesized research on second language acquisition of individuals from birth to adulthood from 71 empirical studies. They reported on the benefits of strong home literacy practices in a young learner's first language (L1). They concluded that home literacy practices combined with strong L1 skills can lead to a successful second language acquisition experience (Dixon, et al., 2012). This is in contrast to the practice of encouraging family members to use English at home, presumably to provide additional practice in learning English.

Research Briefs on DLLs

Specifically related to the DLL population are several recent research briefs which have investigated different aspects of how to best promote language and literacy, some of which include reviews of research, policy and practice issues, and the need for additional research (Castro, 2011; Castro, Garcia, & Markos, 2013; Castro, Páez, Dickinson, & Frede, 2011, Center for Early Care and Education Research (CECER)—Dual Language Learners DLLs, 2011a, 2011b, 2011c). In addition to research briefs, some research articles address the specific needs of DLLs and make recommendations for future research (Hammer, Jia, & Uchikoshi, 2011; Han, Silva, Vukelich, Buell, & Hou, 2013).

Research Brief #2 (CECER—DLLs, 2011a) identified five themes related to the education of DLLs by listening to the needs of attendees at conferences on four different occasions. They found that (a) educators needed additional professional development on dual language learning and on effective instructional strategies, both at the preservice level and as practitioners in early childhood classrooms; (b) recruitment strategies were needed for finding qualified personnel who could adequately support DLLs; (c) strategies for improving access and limiting barriers for families of DLLs were needed; (d) improved methods in assessing the first and second languages of young DLLs were necessary; and (e) a focus on the extended context of the community, families, and classrooms for meeting the needs of DLLs was necessary. The last item on this list is a practice which supports understanding child development as integrated with the social, cultural, and historical contexts in which it occurs (Bodrova & Leong, 2006; Vygotsky,

1978). Because experiences of DLLs differ from those of monolingual children, they will approach those tasks based on their previous cultural practices. As a result, such factors need to be taken into consideration in planning programs for DLLs and for planning professional development that will support teachers working with DLLs. Moreover, as long as the basic needs reflected in these themes prevail and as long as reading, writing, and oral language are taught as separate entities, rather than as concurrent processes; research topics such as writing in prekindergarten for DLLs will continue to comprise a less important role.

Regardless of this need, general discussions about language and literacy for DLLs are available in research, such as *Research Brief # 6*, which reports on the findings of peer reviewed studies from 2000 to 2012 (CECER—DLL, 2011b). Significant findings include: (a) language development differed between DLLs and their monolingual peers, with DLLs exhibiting smaller expressive vocabularies and different grammatical markers in their English development; (b) the two separate developing language systems of DLLs revealed strong, yet inconsistent, cross-language influences throughout their preschool years; (c) exposure to the language (and usage) affected a child's ability in that language; (d) Spanish-speaking DLLs dominate the research, so that variables such as SES and bilingualism are difficult to differentiate, mostly because of the tendency for lower levels of parent education and subsequent family income in Latino populations as opposed to other populations; and (e) methodological limitations, such as small sample sizes, few longitudinal studies, different definitions of DLLs, and inconsistent types of information, prohibit generalization. While assumptions can be

made regarding the difficulty of understanding and producing academic English in writing for DLLs, how these findings relate to writing are yet to be fully explored.

In the most recent research-to-practice brief provided by Castro, Garcia, and Markos (2013), one recommendation of specific interest is training language specialists to support monolingual teachers in making essential links with parents and families of DLLs while being responsive to the children's linguistic and academic needs. A large number of programs for DLLs are taught by teachers who speak only English, so there is a need for supplementary ways to create these essential links. Castro, et al. (2013) suggests that future research continue to explore high-quality dual-language programs to support both the development of the child's home language and the development of English, as well as equality, both linguistic and ethnic. This is similar to the recommendations made by Hammer, et al. (2011), as described in the introduction section.

Research on Writing with DLLs/ELLs

Two specific studies on the development of language and literacy experiences of DLLs were discussed by Páez, Tabors, and López in their 2007 study (Dickinson, McCabe, Clark-Chiarelli, Wolf, & Cross, 2004; Hammer, Miccio, & Wagstaff, 2003). Since that time, the research on various aspects of DLL research has increased every year. Páez et al. described two groups of skills as important for later literacy outcomes in monolingual preschool children: (a) phonological awareness, letter and word recognition, and writing and spelling skills as early literacy skills; and (b) vocabulary and language recall as oral language abilities. As a result, they based their comparison

study on the results of an assessment of these literacy outcomes in two groups of children, an English-speaking and Spanish-speaking group (all dual language learners) with a Spanish-speaking group (who spoke Spanish only). They found that the oral language abilities of the Spanish-speaking group were higher at the end of prekindergarten than the group who was trying to manage learning two languages. Except for phonological awareness, the dual language group scored higher in early literacy skills than the Spanish-speaking group from Puerto Rico. However, they were not benefitting from learning important early literacy skills in their first language and transferring those understandings to English. Páez, et al. (2007) expressed the importance of building oral language skills in the home language during the preschool years, so that DLLs would be ready for the rigor of reading and writing as they enter school.

Three instructional practices that facilitate English learning with younger ELLs and provide a foundation for later learning were reported in other research syntheses and include: (a) supporting the development of both languages with critical emphasis on the child's primary language (August & Shanahan, 2006); (b) providing ELLs with an effective curriculum complemented by sound instruction; and (c) providing additional supports to learn, including appropriate scaffolds to support children when content is too easy or hard (Buysse, Castro, & Peisner-Feinberg, 2010; Castro, Peisner-Feinberg, Buysse, & Gillanders, 2010). Ballantyne, Sanderman, and McLaughlin (2008) further support attendance in high quality prekindergarten programs, especially for Hispanic children for whom there is evidence that these programs can potentially decrease the

existing achievement gap. They list additional evidences from research to describe these responsive programs: (a) use instructional techniques to include children in the social aspects of the classroom; (b) require time to become proficient in their second language (which is usually four to six years); (c) provide explicit instruction in vocabulary; and (d) preserve the benefits of first language literacy and transfer skills in literacy from their first language, as measured by eighth grade reading proficiency (Ballantyne, et al., 2008).

Practical descriptions of classroom strategies are contributing to the conversation on the best ways to support young children learning English. As previously addressed with regard to their monolingual peers, drawing has been studied as a means of supporting children with their writing (Levin & Bus, 2003). Castañeda, Rodríguez-González, and Schultz (2011) advise that ELL teachers use drawing as a pre-writing activity and as a way of showing story comprehension. Meier (2013) suggests that interactive drawings rely less on oral language proficiency, including syntax, phonology, and vocabulary, but rather on children's observations of their classrooms and classmates. Both emphasize content over mechanics, stressing instead quality teacher-child conversations as a means of reshaping the students' ideas in oral language before they put those ideas down on paper. Castañeda, et al. (2013) caution that ELLs may need more support in understanding concepts involved in story sequence, such as first and last or beginning and end. Meier (2013) discusses the use of sentence frames as a way chunking larger pieces of information into more manageable, bite-sized chunks of information. Affording ELLs with the opportunity to read along with the teacher and

their peers during read alouds and shared reading activities has the potential of providing English pronunciation models, which is helpful to comprehension in both reading and writing. Together with predictable, patterned storybooks as a springboard for making their own books, a combination of effective strategies provides the foundation for an emergent writer (Castañeda, et al., 2013; Meier, 2013).

While the research syntheses and articles described above address older children, the strategies deserve attention by those working with younger ELLs, but with vigilance. Over-generalizing strategies from an older to a younger population may not provide the needed focus on oral language development with young children (Carlo, August, McLaughlin, Snow, Dressler, Lippman, et al., 2004; Castro, Garcia, & Markos, 2013; Slavin & Cheung, 2004; Vaughn, Mathes, Linan-Thompson, & Francis, 2005). Table 3, *Research on Writing Supporting in Young ELLs*, provides an outline of six articles, published between 2007 and 2012, that examine recent research studies on writing in prekindergarten for young, Spanish-speaking children learning English. Even though prekindergarten programs in Texas are culturally and linguistically diverse, the rapidly growing Spanish-speaking population is emphasized here. These studies, taken collectively, demonstrate the impact of quality instruction in the preschool years for young ELLs. They also address the lack of attention paid to writing as co-developing along with reading in preschool children and the paucity of research on how to support preschool English learners' acquisition of English while developing early reading and writing skills (Matera & Gerber, 2008).

In response to the aim of finding the interconnection between emergent language, literacy, and writing skills with the goal of better supporting young dual-language learners, Matera and Gerber (2008) investigated the impact of a literacy curriculum on Head Start English Learners' development of writing skills. Children ($N = 76$) were assigned to two treatment groups and two control groups. The treatment groups were provided an intervention for ten weeks with opportunities to explore print concepts, phonological awareness, and writing (without direct instruction), and the control groups participated in vocabulary developing activities without the writing component. Both groups received instruction in the child's first language when new concepts were introduced, while receiving support in English when new vocabulary was introduced. In this preliminary study, children in the treatment groups made significant improvement in writing in response to the intentionally selected activities provided by their teachers. Matera and Gerber's (2008) study supports the conceptual framework of the present study, which advocates for intentional teaching.

Through additional studies, Matera (2011a; 2011b) further investigated the results of her preliminary study. Using data from the preliminary study when the children were in prekindergarten, along with the addition of new data collected in the same children's kindergarten year, Matera was able to investigate the results of a longitudinal study on the writing treatment. During the children's kindergarten year, the children in the treatment group received 20 sessions of instruction over a ten-week period, with two 30-minute sessions per week, the first in Spanish and the second in English. Ten minutes of each session focused on storytelling and twenty minutes

focused on the instructional activity. A treatment unrelated to writing was provided to the control group. The data were analyzed based on three time periods, during prekindergarten (Time 1), after prekindergarten (Time 2), and two months after kindergarten (Time 3). Findings summarized that children in the treatment group significantly outperformed the control group in measures of English print knowledge and writing and in measures of Spanish writing at Time 3. Matera (2011b) suggests that these results show that both the writing component and print knowledge, which was the instructional component of the writing intervention, should be promoted in a preschool classroom. For children learning English, Matera summarizes that writing is an effective and useful component of a preschool curriculum in that it serves as a learning tool for young ELLs making connections to other aspects of early literacy.

Specific strategies that are found to be effective when used with children who are learning English must be paired with a means to help teachers learn and incorporate those strategies into their teaching. Buysse, Castro, and Peisner-Feinberg (2010) evaluated the effects of the Nuestros Niños professional development program on classroom practices and child outcomes related to English and Spanish language development and early literacy skills. The professional development program consisted of content on research-based instructional practices designed to supplement the core curriculum and scaffold learning for children learning English. Professional development institutes were not provided in isolation, but were used along with individualized consultation, and community of practice meetings. Professional development activities were planned for teacher reflection, feedback, and collaborative

problem-solving. While early writing was included in the list of professional development institutes, no other reference to writing was made in the article.

Several recommendations are made regarding preschool writing in the report by California Preschool Curriculum Framework, Volume 1, including specific activities for each recommendation. The following suggestions summarize what the framework provided in relation to writing: (a) use the child's home language to initiate adult- and peer- mediated conversational opportunities about what the children are writing and then probe for clarification so that the child can reinforce understandings in English; (b) look for opportunities to help children link writing to other strengths, such as listening and speaking, by providing printed materials in the children's home languages, and wordless books for discussion in the home language, followed by related writing activities; (c) use Appendix D, *Research on Supporting Writing in Young ELLs*, concentrates on presenting specific research related to supporting ELLs in prekindergarten programs from Spanish-speaking homes in the area of writing, which is a growing area of necessity in the state of Texas. Research perspectives on the characteristics of successful ELL programs, and the effects of specific instructional practices on academic outcomes for young ELLs, typically of elementary-aged students, have been addressed by several research syntheses (August & Shanahan, 2006; Genesee, Lindholm-Leary, Saunders, & Christian, 2006; Gersten, Baker, Shanahan, Linan-Thompson, Collins, & Scarcella, 2007; Dixon, Zhao, Shin, Wu, Su, Burgess-Brigham, Gezer, & Snow, 2012; Goldenberg, 2008).

Downer, López, Grimm, Hamagami, Pianta, and Howes, (2012) propose two key issues in serving young Latino children in prekindergarten school programs (see Table 4). The first is quality teacher-child interactions. Quality interactions, Quality interactions, characteristic of instructionally supportive, responsive, and sensitive interactions with caring adults in classrooms that are organized and well-managed, are linked to gains in young children's literacy and language development and reductions in behavior problems. The second issue, linguistic diversity, is defined by Downer, et al. as the hallmark of the changing face of the United States. While studies have argued that differences in socioeconomic characteristics may be the achievement gap culprit, Downer and colleagues suggest that unique factors, such as family characteristics, parenting activities, household resources or language skills, may account for differences in achievement. As Castro, et al. (2013) propose, differences need not be equated with deficiencies, nor viewed from a monolingual perspective that captures only practices of the mainstream culture. Although important to a discussion on supporting young ELLs in writing, their research is highlighted in the section on observational research (see Appendix C).

Although a growing field, more research currently exists for supporting primary ELLs than prekindergarten students. While the amount of research to support ELLs has grown considerably in the past several years, fewer studies specifically address children in prekindergarten.

Summary

The previous sections reviewed of the research and related literature on studies on classroom observational tools commonly used in prekindergarten, and research on supporting young ELLs in the area of writing. This research is in addition to studies that were conducted prior to the year 2000, which is not addressed within the scope of the current study.

The research supports the importance of writing in prekindergarten. There is little argument that writing has a key role, along with reading, in supporting children along their early literacy journey. There is not enough information on the specific strategies that teachers need to know in order to build a foundation of effective writing practices in prekindergarten. Therefore, the present study examines what happens in prekindergarten classrooms, as reported through a self-report study and also through multi-faceted classroom observations. Information provided through the observational study will provide information for the development of inservice training for prekindergarten teachers. For effective coaching and mentoring to take place in the classrooms, it is important to know what teachers are doing and then guide them in their next steps. While a highly individualized process, themes or patterns in classroom strategies and practices become known through observations and can become the springboard for focused talk between the teacher and the mentor/coach.

Purpose

The purpose of this study (Article #2) is to use three observation measures to determine the opportunities teachers provide, the types of writing artifacts that can be observed in the classroom, and the ways in which children are engaged in writing experiences in the classroom. Always among the top pedagogical concerns in the classroom, the classroom environment shapes the manner in which key interactions take place in the classroom with materials and activities (Roskos & Neuman (2011). The physical, social, and temporal environments influence the learning that occurs in the classroom; that is, the way the environment is arranged, the social interactions that take place in that environment, and the time provided for the activities in that environment, taken together, form a picture of the classroom (Hohmann & Weikart, 2008).

Based on informal data taken prior to several professional development sessions offered over the past few years or in informal observations while coaching in classrooms, education service center specialists heard or witnessed concerns: play centers were removed from many classrooms; writing center activities consisted of mostly copying and tracing words or numbers, rather than providing materials and tools for creative book-making; and instructional interactions with the teachers rarely used modeled, shared, or interactive writing beyond a Morning Message or Daily News. Therefore, it was hypothesized that the explicit observations of writing on the observation protocol would reveal that only moderate amounts of writing activities or artifacts will be present in the classrooms.

Context

The present study examines the writing practices of prekindergarten teachers through observations of interacting classroom components so that the distinct features could be investigated: (a) the teacher; (b) five students; and (c) the overall classroom. This study goes beyond the self-report survey used in Article #1, where the teacher perceptions were used to examine classroom practices, to a multi-faceted observation. Goe, Bell and Little (2008) caution that self-report surveys should not be used in isolation when evaluating teacher practices, as reliability and validity of this method of data collection is not fully established. Supplementing self-report measures with observations of classroom practices may increase the accuracy of the results (Cutler & Graham, 2008; Goe, Bell, & Little, 2008). Thus, the results from present study can potentially provide additional information with which to customize, modify, or expand current professional development and coaching to help teachers perfect their writing practices in prekindergarten programs (Molle, 2013).

The current study uses a modified version of existing instruments to collect data in prekindergarten classrooms with a focus on the educational use of writing in the classroom and writing artifacts that are present in the prekindergarten classroom. Four different educational environments were investigated: rural, suburban, urban, and private schools. Authentic classroom behaviors and differences between monolingual and English Language Learners (ELLs) were investigated in relation to their use of writing.

Methods

This section discusses the methodology used in Article #2. The setting, participants, and instrumentation are discussed first, followed by the data analysis.

Setting

Investigating Writing Activities and Writing Artifacts in Prekindergarten through Classroom Observation uses secondary data collected from observations in classrooms during the months of February and March of 2013. Forty-two classrooms serving prekindergarten students were visited to examine the writing practices that take place in the classrooms. Visits were spontaneous and not necessarily during the time that teachers set aside for writing instruction. However, one third of the evaluation was based on evidence of writing in the classroom environment, so in classrooms where writing was often used, evidence could be found through writing artifacts, anchor charts (also called attribute charts by Soderman, Clevenger, and Kent, 2013), a writing center, or student journals.

Participants

Secondary data collected in the classroom in the second study represented a total of 760 students, including 210 students who were directly observed and 43 classroom teachers from 12 rural (204 students), nine suburban (133 students), 13 urban (280 students), and nine private (143 students) prekindergarten classrooms from a large region of southeast Texas. Seven of the classrooms were from two higher socio-economic status (SES) private Christian schools and two of the classrooms were from one non-religious (high SES) private school. Four classrooms were observed in a charter school

where teachers provided instruction in collaboration with an urban public school and Head Start. Seven classrooms were visited in a Montessori school and two more classrooms were visited in on another EC/PK Center, both in the same urban school district, where the majority of students receive free and reduced lunch. Seven more classrooms were from one middle-income rural school and five classrooms were from another rural school district. Nine classrooms were visited in two suburban, middle-to-upper SES schools.

All of the classrooms were located in districts where staff from the regional service center had previously (over the last 11 years) provided professional development, so that trusting and collaborative relationships with those districts have been developed. In some of the classrooms, regional service center staff had previously provided onsite coaching to support the implementation of work stations, or conducted observations to support the implementation of a year-long scope and sequence, or had supported teachers of children with disabilities who were being included in the classroom. Of the 210 students in the study, 102 were male and 108 were female. Table 6 shows the breakdown of ethnicity by student group.

Table 40. Ethnicity of student participants.

African American		Asian		Hispanic		White		Total
M	F	M	F	M	F	M	F	
15	22	5	4	52	55	30	27	210
7%	10%	2%	2%	25%	26%	14%	13%	100%

Instruments

An adaptation of an observation survey, the *Classroom Observation Schedule (COS)* (Waxman, Wang, Lindvall, & Anderson, 1988) was renamed as the *PK Writing Observation Schedule* for the purposes of the current study. The adapted version was used to observe in each classroom approximately five students for five 30-second intervals during the 30 minute data collection periods. Due to the nature of shorter activity durations in the prekindergarten classroom, the *Classroom Observation Schedule (COS)* was modified in the following ways. Observations lasted up to 30 minutes, instead of one hour. Five children were observed for approximately five sequences, rather than ten. Fewer than five sequences were recorded if the instruction ended so that children could leave the room for another planned activity (such as physical education, music, or library). In each classroom, a low-inference observation was conducted of the classroom teacher and five students, and a high-inference observation was conducted of the classroom environment with the purpose of investigating comprehensive practices that take into consideration the interplay between the teacher, the students, and the environment.

Because the study's focus is on writing in the prekindergarten classroom, the *PK Student Behavior Observation Schedule*, adapted from the *Student Behavior Observation Schedule* (Waxman, Wang, Lindvall, & Anderson, 1988), was modified by adding a section on the *Educational Use of Writing*. The *PK Teacher Roles Observation Schedule* remained the same. On the *Teacher Roles Observation Schedule*, interactions, setting, instructional orientation, nature of interactions, purpose of interactions,

instructional practices, and language used were checked as they were observed. No overt category for writing was included in the teacher roles survey, but many of the types of interactions and purposes of those interactions could potentially be used during writing activities. *The PK Overall Classroom Observation Measure* was modified by adding a section on *Writing* to provide researchers with information on the types of writing artifacts that could potentially be found in a prekindergarten classroom. In the same way, some instructional practices related to the use of technology could be applied to shared or interactive writing and coded when the teacher used technology to present material. Field notes were taken on observations related to writing used by the teacher that were not overtly checked on the teacher roles observation schedule.

The student behavior observation schedule included a few activity types that might be applied to writing: written assignment, and working kinesthetically (such as using paint to write or using playdough to form the letters in a child's name). It was also possible that one might observe a child using an iPad or an interactive white board to write or draw. These observations were recorded in the field notes when observed.

An explicit section for writing on the student behavior observation schedule included five specific behaviors under the category of educational use of writing. These behaviors included: (a) using writing for tracing or copying words or numbers; (b) making a book (adult-directed); (c) making a book (child-directed); playing with writing (sensory materials); participating in a teacher guided lesson on modeled, shared, or interactive writing.

The overall classroom observation measure was used to document the extent to which several classroom activities were used or demonstrated during the observation. Broad categories included: instruction, student, classroom arrangement/environment, and writing. Fourteen explicit writing activities were included on the overall classroom observation measure. These included: (a) tools for writing were available (markers, pens, pencils and other writing implements); (b) materials for bookmaking (pre-stapled books, theme-related shaped paper, paper for book covers were available); (c) charts used during modeled, shared, or interactive writing were present; (d) student folders/journals were available; (e) children were provided with an opportunity to respond to a question of the day; (f) children were able to participate in a morning message or daily news; (g) writing baskets (containing paper, writing tools, clipboards, and theme-related books/props were available); (h) children were able to retell a familiar story, fingerplay, or nursery rhyme using props (oral composition); (i) class books (where each child contributed a page) were available in the classroom library; (j) artwork, including drawings or paintings in response to literature were visible; (k) technology was used to teach writing or for children to practice writing; (l) children were using writing during dramatic play (e.g., doctor using a clipboard; waitress taking an order using a pad); (m) a writing center or work station was available; (n) writing materials were available in other centers/work stations. Any additional writing practices not listed on the overall classroom observation measure were included in the field notes.

Procedures

Observations were conducted randomly so that typical, every day practices could be observed. Most of the time, the teachers knew that someone was on their campus and might be observing in their classrooms, but they did not know in advance of the date of the observation to plan a specific lesson for the observation.

Language usage in the classroom. Most of the classroom instruction was provided in English, but in several classrooms, instruction was provided in Spanish. In some bilingual classrooms, the language of the day was English, and the teacher used both English and Spanish to clarify understanding with the students. In at least three classrooms, field notes indicated that the children spoke in English to the observer, even though the teacher spoke to them in Spanish. Even though the observers did not speak Spanish fluently, the familiar contextual clues of the classroom helped to the observers understand the nature of most interactions. If there were any questions about the lesson or interactions that took place, the observers checked with the teachers before completing the overall classroom observation measure. Significant notes related to the language of instruction were documented in the field notes, along with other important qualitative data, to ensure that the integrity of the observation was in place. The research methods are summarized in Table 41 and include research questions, data sources and instruments, and data analysis. Following is a detailed description of the table's contents.

Table 41. Research methods for observation study.

Research Questions	Data Sources and Instruments	Data Analysis
1. To what extent do prekindergarten teachers provide writing opportunities in their classrooms?	Educational Use of Writing on the Student Behavior Observation Schedule Writing opportunities in the classroom as recorded on the PK Overall Classroom Observation Measure	Observation; Descriptive Statistics Analysis of percentage of opportunities provided “to a great extent” or “to some extent” in each classroom
2. What types of writing artifacts can be seen during observations of the classroom environment?	Writing artifacts as recorded on the PK Overall Classroom Observation Measure	Observation; Descriptive Statistics Further analysis of items in the Overall Measure, including 2, 3, 4, 7, 9, 10, 12, except for 1, 5, 6, 8, 11, 13, and 14 (which are not writing artifacts)
3. Are there significant differences ($p < .05$) in student engagement in writing experiences by gender and ethnicity?	Student’s educational use of writing as recorded on the Student Behavior Observation Schedule	ANOVA
4. Are there significant differences ($p < .05$) among educational use of writing by type of program (urban, suburban, rural, or private)?	Student Behavior Observation Schedule	ANOVA
5. Are there significant differences ($p < .05$) among classroom practices of writing by classroom setting (whole class, small group, dyads, individual, traveling, and other) and student engagement?	PK Overall classroom Observation Measure	ANOVA

Data Analysis

Variables from the observational data of teachers, students, and the environment were coded and then entered electronically using Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics was calculated and reported on specific types of writing behaviors observed in the classrooms. Field notes were collected, sorted by themes, analyzed, and the qualitative data reported.

Data Analysis by Question

Research question one. To what extent do prekindergarten teachers provide writing opportunities in their classrooms? To answer the first question, data was collected on each student's Educational Use of Writing during the observation. The five items included: (a) tracing or copying numbers, letters, or words; (b) making a book (adult-directed); (c) making a book (child-directed); (d) playing with writing (using sensory materials); (e) teacher guided writing (using modeled, shared, or interactive writing), such as the Morning Message or the Daily News. A sixth item (f), entitled *Other*, was an open-ended item for the researcher to indicate any other educational use of writing not listed in items one through five.

In addition to the five items on the *Student Behavior Observation Schedule*, data was analyzed from the *Overall Classroom Observation Measure* to see the extent to which specific writing opportunities were provided outside of the scope of the student observation. A high inference chart that answers the degree to which a particular behavior occurred in the classroom, the *Overall Classroom Observation Measure*

provides an opportunity to record writing artifacts that may not have been visible during the observation of the students.

Fourteen types of writing opportunities that could possibly be visible in the classroom were listed on the observation measure. However, to answer question one, only column two and three on the measure will be discussed, as both of these indicate that a practice occurred to some extent (2) or to a great extent (3). The last item (#15) on the observation measure provided an opportunity for the observer to write-in additional types of writing artifacts that were seen. These will be categorized and discussed as part of the answer to this question.

Research question two. What types of writing artifacts can be seen during observations of the classroom environment? Specific writing activities that could be categorized as writing artifacts on the *Overall Classroom Observation Measure* will be analyzed to answer this question. These include items: #2, #3, #4, #7, #9, #10, and #12. The items on this measure related to writing were collected from recommendations of the most commonly cited researchers in the study (Owocki, 1999; Pinnell & Fountas, 2011; Schickedanz & Casbergue, 2009; Trehearne, 2011). Items were analyzed by their frequency of occurrence; #4, #10, #3, #2, #9, #7, and #12. Descriptive statistics were used to summarize the results. Collected data were analyzed and any patterns and trends described.

Research question three. Are there significant differences ($p < .05$) in student engagement in writing experiences by gender and ethnicity? The *Education Use of Writing* category on the student behavior observation schedule will provide the data to

answer this question, which were also be analyzed for patterns of usage by ethnicity and gender.

Research question four. Are there significant differences ($p < .05$) among educational use of writing by type of school (urban, suburban, rural, or private)? The Education Use of Writing category on the student behavior observation schedule will also provide the data to answer this question, which were also be analyzed for patterns of usage by type of educational environment (urban, suburban, rural, or private).

Research question five. Are there significant differences ($p \leq .05$) among classroom practices of writing (on the Overall Classroom Observation Schedule) by classroom setting (whole class, small group, dyads, individual, traveling, and other) and student engagement. The Overall Classroom Observation Schedule will be used to investigate grouping and student engagement. Two items on the observation schedule will be investigated:

Inter-rater Reliability

The *Teacher Roles Observation Schedule*, the *Student Behavior Observation Schedule*, and the *Overall Classroom Observation Measure* were scored separately by education service center specialists and another observer twice, once at the onset of the observations, and another time near the conclusion of the observations. During both sets of observations, coding guidelines were established (and re-established during the second observation), practiced in a classroom, and then responses were compared and discussed to reach consensus. In the classrooms, responses were coded separately. Inter-

rater reliability was 94% for the *Teacher Roles Observation Schedule*, 86% for the *Student Behavior Observation Schedule*, and 93% for the *Overall Classroom Observation Measure*. A greater discrepancy occurred during the *Student Behavior Observation Schedule* because fewer items were recorded during the observation, increasing the chances that any discrepancies would be more evident. Differences in how observers rated the *Overall Classroom Observation Measure* in areas such as, problem-solving, integrated learning, and how the teacher related concepts to students' lives were discussed and resolved by consensus.

Results

This second section of Chapter III includes an overview of the results from the investigation conducted for Article #2. Again the first question addressed the extent to which prekindergarten teachers provide writing opportunities in their classrooms. The second question investigated the writing artifacts in the classroom. The third, fourth, and fifth questions investigated the significant differences through an analyses of variance. The results are presented below in order by question.

Writing Artifacts in the Classroom

Descriptive statistics were used to summarize the results. Collected data were analyzed and any patterns and trends are described below.

Research question one. To answer the first question that asked to what extent prekindergarten teachers provide writing opportunities in their classrooms, data were collected on each student's *Educational Use of Writing* during the observation. Additionally, field notes were analyzed from the *Overall Classroom Observation*

Measure to see the extent to which specific writing opportunities were provided outside of the scope of the observation. On the *PK Student Behavior Observation Schedule*, the section on *Educational Use of Writing* included: tracing or copying numbers or words, making an adult-directed book, making a child-directed book, playing with writing using sensory materials, or participating in a teacher-guided lesson which involved modeled, shared, or interactive writing. Table 42 shows the results of the descriptive statistics on this question.

In most of the observations, very few of these writing behaviors were observed. In the examples that were recorded, the most common response was tracing/copying words, letters, or numerals, which was the first item on the list in this category ($M = 3.96$). More often than not, tracing or copying was the result of a written assignment, often involving worksheets. In one classroom, field notes recorded that the children spent 75-100% of the observation time completing four worksheets, in which children were writing the numerals from 1 to 100, writing the alphabet, writing upper and lower case letters to match the sound represented by a picture, and writing their names on lined paper. On a few (less than five) occasions, tracing or copying involved copying words from a list in the writing center onto a dry erase board or copying words from a flipbook onto a piece of paper. Because these classrooms had many words, including the children's names, as well as letters and numbers available, it was difficult to tell if children wrote the words from memory or copied them from the walls.

The second category in the section on the Education Use of Writing was making an adult-directed book. In one classroom, each child was given a piece of paper with a

lasso drawn in the center and the following sentence on the bottom of the page: “A _____ uses _____ to _____.” The children were instructed to draw a picture of something a cowboy or cowgirl uses and explain why he or she needs it. The activity was a follow-up to reading a related book and making a list of things used by cowboys and cowgirls. Responses included: “A cowgirl uses chaps to keep away snakes.” (“A cowgirl uses chaps to keep away snakes.”) and “A cowboy uses spurs to help his horse go fast” (“A cowboy uses spurs to help his horse go fast.”). The children were able to copy the word they needed from the list (e.g., chaps, spurs), but for the rest of the sentence, children were observed trying to stretch out the sounds in the words to spell them in their sentence, using invented spelling.

In a second classroom, the children were presented with a booklet entitled, *Animales del Desierto*. On each page was an animal that lived in the desert and a place for them to write (copy) the word twice. Examples included: lagarto, coyote, serpiente, correcaminos, escorpion. In this same book, there was also a place on one of the pages for the children to generate a sentence about the desert. One child wrote: “El desierto esta caliente.”

In a third example of an adult-directed book, the children were creating a number book, where children wrote the numerals from one to five, each on a separate page, and then wrote an icon to represent the number of items to match the numeral. In all three of the examples above, the children completed these projects as part of their assigned learning/activity center/work station responsibilities.

The third category in the section on the Educational Use of Writing involved making a child-created book. Children were provided with pages of blank paper, stapled together, and the children could write their own stories. In just one classroom, all five children were making child-directed books during their writing workshop time for up to 60% of the observation time. One student, for example, made a book for 40% of the observation time, but spent another 40% of the time reading her book to her friends, and another 20% meeting with the teacher. Each page contained a message in invented spelling and a “picture to help the reader understand the story,” as stated by the teacher. This writing time was highly supported by the teacher, who called several children to her table, one at a time, by the title of the stories the children were writing. Each individual conference supported and challenged children to take their writing to a slightly higher level. The teacher suggested to one child, “This page is blank. Can you think of anything else to go here?” She encouraged another by saying, “You could be the spacing professor in our class. You could teach everyone else how to put spaces between each word.” And to a third child, she said, “You told us the setting of your story; you told us where she was. I see grass and the sun—she was outside!” It is significant to note that this was the only classroom of the 43 classrooms that provided opportunities for the children to make books during the observation. Field notes do not record any evidence of child-created books in the classroom environments of any other classroom.

The fourth category in the section on the Educational Use of Writing was called playing with writing, using sensory materials to create a message. Because this section

is open-ended, the following list documents the type of sensory play observe at least once during an observation: tracing an object using a stencil, painting with water color, painting at an easel, drawing or coloring a picture, forming letters, numbers, and shapes on a magna doodle, writing on a chalk board or dry erase board, forming numerals with a wet sponge on a chalkboard, creating a free drawing in a journal, using letter tiles to form words, using a typewriter to form words, or writing in shaving cream. The most common was drawing or coloring a picture. In one classroom, four children spent 80% of the observation time coloring a picture. In another classroom, three children spent 60% to 80% of the observation time using a dry erase board, which was part of a written assignment required by the work station.

In one classroom, 20 children were sitting at tables in groups of four. The teacher walked around and placed an ample squirt of shaving cream on the table in front of each child. The teacher suggested that the children write their names, practice writing letters, or practice writing some color words they knew in the shaving cream. As such, the whole class played with sensory materials (shaving cream) for the entire observation (100%); this activity also involved free exploration of the materials and working kinesthetically. Another sensory material that children used to experiment with writing was painting. Typically, the child painted a picture and then wrote his or her name at the top of the picture when finished. When painting was involved, the children were typically engaged in free exploration of the materials and working kinesthetically, as with the shaving cream. In one classroom, two children spent 40% of the observation engaged in painting.

The fifth category of Educational Use of Writing was teacher guided writing, which included modeled, shared or interactive writing. The teacher in four (of 43) classrooms used shared writing during the observation. In one classroom, the teacher copied the names of four children (from their name cards) on chart paper, so that the children could see the letters she was writing and join her in naming them. She then called on each of those children, one at a time, to share with the class their news of the day, which in most cases was related to their study on Africa. The sentences were: “I like butterflies;” “I liked playing with animals and elephants;” “They use a stick to see animals in the grass;” “A tiger is from Africa.” The teacher underlined and then counted the number of words in each sentence with the children’s help and wrote the numeral in front of the sentence. The children helped to sound out the words by stretching the sounds and making suggestions of the letter, but the teacher did not share the pen with them. Later in the morning, the class returned to the whole group area for a mini-lesson on the letter V. The children provided ideas of words that begin with V and the teacher drew them on the chart paper. She also wrote the word label for each of the pictures: Valentine, vase, volcano, van. She invited the children to record these ideas in their journals when they returned to their learning/activity centers. It was apparent that both of these activities were routines in the classroom. All of the children in this class participated in a form of shared writing for 40% of the observation.

In the second classroom that used shared writing, the teacher guided the children to help write the daily news, which took only 25% of the observation time for all five students. In the third classroom, the teacher shared the pen with the students as they

matched pictures of words from the “at” family with the appropriate beginning sound that started each word. A small group of children engaged in taking turns to participate in the interactive writing of the beginning sounds of the following words: bat, cat, mat, and rat. Two of the children in the observation participated in this activity for 20% of the observation time. In a fourth classroom, three of the children in the observation participated in shared writing of the Morning Message for 25% of the observation.

Table 42. Mean percentage values of student educational use of writing.

	<i>M</i>	<i>SD</i>
Tracing or copying word, letter, numbers	3.98	14.86
Playing with sensory materials	3.56	16.12
Other	3.03	13.07
Teacher guided writing: modeled, shared or interactive	2.80	10.93
Making a book, child directed	1.44	8.44
Making a book, adult directed	.35	2.94

Note. $N = 215$, Min = 0, Max = 100.

The *Overall Classroom Observation Measure* provides additional information on the writing opportunities that teachers provide in their classrooms. It is a high inference chart because it answers the question; to what degree did this particular behavior occur in the classroom? Table 43 lists the 14 types of writing opportunities that could possibly be visible in the classroom, but may not have been evident in the actual observation. To answer question one, only column two and three will be discussed, as both of these indicate that a practice occurred to some extent (2) or to a great extent (3). The last item

(#15) on the observation measure provided an opportunity for the observer to write-in additional types of writing artifacts that were seen. These are not included in Table 43, but are provided in the description below following Table 44.

Table 43. Mean percentage values for writing opportunities in prekindergarten.

Writing Opportunities	<i>M</i>	<i>SD</i>
Writing tools were available	2.79	.41
A writing center or work station was available	2.35	.72
Student folders/journals were available	2.33	.57
Artwork in response to literature was available	1.93	.83
Writing materials were available in other centers/work stations	1.91	.84
Charts or graphic organizers used during guided writing were present	1.88	.70
Children participated in Morning Message or Daily News	1.77	.78
Materials for bookmaking were available	1.58	.79
Class books with child-created pages were available	1.51	.74
Technology was used to teach writing or for children to practice writing	1.44	.70
Writing baskets were available	1.40	.73
Children were able to retell familiar stories or fingerplays using available props	1.37	.66
Children were writing during dramatic (pretend) play using theme-related props	1.35	.69
Children were provided with the opportunity to respond to a question of the day	1.19	.55
Other	1.14	.47

Note. $N = 43$, Min = 1, Max = 3.

To provide more information on the frequency and percentage of writing opportunities provided in the classrooms observed, Table 44 was created to show trends in these prekindergarten classrooms. The three numerals at the top of the chart represent the rating scale used to indicate the extent to which each activity was used or demonstrated during the observation period: numeral one indicated that the behavior was not observed at all; numeral two indicated that the behavior was observed once or twice; and numeral three indicated that the behavior was observed to a great extent (three or more times).

Writing tools were evident to a great extent in 81% of the classrooms and to some extent in 19% of the classrooms, totaling 100% of the classrooms; there were no other artifacts available to that great of an extent. However, journals/folders were available to some or to a great extent in 93% of the classrooms and a writing center was available to some or a great extent in 86% of the classrooms. Three artifacts were available to some or a great extent over 50% of the time, including responses to literature (69%), writing across centers (61%), and guided writing charts (59%). Guided writing charts (showing evidence that teachers used modeled, shared, or interactive writing and saved these charts to mediate learning between them and the environment) occurred to some extent more than to a great extent.

It is also interesting to note that several writing activities were not observed at all. In 88% of the classrooms, a question of the day was not observed. Dramatic play- with-print was not available in 81% of the classrooms. Five other items were not available over 50% of the time, including writing baskets (79%), technology and writing

(69%), class books (66%), story retell (66%), and bookmaking materials (62%). The dramatic play center, when it was in the classroom, was almost always a housekeeping center, but in a few classrooms it had been transformed into a medical clinic, a veterinarian's office, a farmer's market, and an African schoolhouse. Writing was in use in all of the classrooms that had been intentionally changed from the housekeeping center.

In contrast, one classroom of the 43 classrooms exhibited every writing artifact on the list to a great extent, and one other classroom exhibited almost all of the writing artifacts. Both classrooms had a story retell center that provided opportunities for the children to retell stories every day to a great extent, typically with copy of the book and props for the storytelling board. Children were practicing writing using an iPad. In one class, children were using the available bookmaking materials to create a class book for Valentine's Day and in the other classroom, children were creating books from their own experiences. Both classrooms provided a question of the day, where children shared their responses through the use of the Daily News in one classroom and a graph in the other, both of which were completed as part of a shared writing activity. Charts from prior shared writing activities were available around the room and in the hallway outside of the classroom. The writing center and the dramatic play area were in use for various types of writing in both classrooms.

Table 44. Writing opportunities available through observation by frequency and percentage.

Writing Opportunities	1		2		3	
Writing Tools	0	0%	8	19%	34	81%
Bookmaking materials	26	62%	8	19%	8	19%
Guided writing charts	13	31%	21	40%	8	19%
Journals/folders	3	7%	25	60%	14	33%
Question of the day	37	88%	2	5%	3	7%
Morning Message/Daily News	18	43%	15	36%	9	21%
Writing baskets	33	79%	5	12%	4	10%
Story Retell	28	66%	10	24%	4	10%
Class Books	28	66%	9	21%	5	12%
Response to Literature	13	31%	13	31%	16	38%
Technology & writing	29	69%	9	21%	4	10%
Dramatic play & writing	34	81%	3	7%	5	12%
Writing center	6	14%	5	12%	31	74%
Writing across centers	17	40%	13	31%	12	30%

Item #15 on the *Overall Classroom Observation Measure* provides space for the observer to note other types of artifacts observed in the classrooms. Several classrooms had a sign-in sheet in which children signed their names when they entered the classroom; this was not included in the list of items from the *Overall Classroom Observation Measure*, but needs to be noted as occurring to a great extent. One classroom had a few types of writing artifacts that were not present in other classrooms, including child-created labels for materials and artifacts from various on-going author

studies. Labels had been placed by the children on several materials; the labels were made from sticky notes and were located all around the room. For example, the one sticking on the computer said, “kumputr,” which shows that the child who wrote it understands the alphabetic principle, letter order in spelled words, and has a strong sense of invented spelling at the phonetic level. Responses to literature were abundant in this same classroom, as were evidences of author studies of Robert Munch, Eric Carle, Ezra Jack Keats, and Pat Hutchins. In another classroom, a chart was provided to answer and graph a question of the day, which they did every week. Children graphed their favorite color in the American flag, their favorite pig in the story of the Three Pigs, and their favorite flavor of milk to drink. The teacher reported that they had answered and graphed numerous questions throughout the year.

Research question two. What types of writing artifacts can be seen during observations of the classroom environment? Specific writing activities that could be categorized as writing artifacts on the *Overall Classroom Observation Measure* will be analyzed to answer this question. These include items: #2 (materials for bookmaking), #3 (charts used in guided writing), #4 (student folders/journals), #7 (writing baskets), #9 (class books), #10 (artwork in response to literature), and #12 (writing during dramatic play). The items on this measure related to writing were collected from recommendations of the most commonly cited researchers in the study (Owocki, 1999; Pinnell & Fountas, 2011; Schickedanz & Casbergue, 2009; Trehearne, 2011). Items are analyzed below by their frequency of occurrence; #4, #10, #3, #2, #9, #7, and #12.

The most common artifact was the use of student folders or journals (Item #4), which were available to a great or some extent most classrooms (93%). In some classrooms, the children wrote in their journals every day. Typically, the children wrote a letter they were studying in the journal and drew pictures of items that had the same beginning sound as that letter. In a few classrooms, the journal was used to match a specific content area, such as a math journal, where children might draw a pattern or a set of items, or a science journal, where children might record the weather for the week. No journals were observed with free drawing as the focus of the journal.

Artwork, including drawings or paintings in response to literature (Item #10), was displayed to a great or some extent in most classrooms (69%). This item may be underrepresented because some teachers ask their students to draw a picture in response to literature in their journals. The observation did not include looking through the pages of the journals, except in a few classrooms, where teachers volunteered the information. Instead, the observation mainly included artwork that was visible on classroom or hallway walls. It should also be noted that artwork was often present, but it was not observably artwork created in response to a book that the teacher had read to the students or one the children enjoyed and had responded to spontaneously.

Charts used during modeled, shared, or interactive writing, including graphic organizers (Item #3) were observed to some or a great extent in the majority of classrooms (59%). In one classroom, three questions were posted on a chart in the science area: “How does it look? How does it work? What does it feel like?” These questions had been written as part of a shared writing activity and were posted in the

center right after they were introduced to the children. In another area of the same classroom, the following question was posted: “What can you do to stay healthy?” The question had been answered during the shared writing of the Daily News and several children had volunteered a response.

Materials for bookmaking, including pre-stapled books, theme-shaped paper, and paper for book covers (Item #2) were seen in the classrooms to a great or some extent less than 50% of the time (38%). Class books, where each child in the class contributed a page (Item #9), were seen to a great or some extent in about one-third of the classrooms (33%), but in most classrooms they were not observed at all. In one classroom where they were seen to a great extent, the class book that the teacher shared with the students during whole group time included heart-shaped paper which the children had decorated with dot markers and was stapled together to form a book of all of the children’s hearts. The teacher wrote the child’s dictated message on each page. For example, on one child’s page, she wrote, “I love my Daddy.”

Writing baskets, containing paper, writing tools, clipboards, and theme-related props (Item #7), were seen only 22% of the time. The use of writing baskets is one way to extend a theme beyond the time it is the focus in the classroom. For example, during a unit on transportation a teacher created a “Cars” writing basket, with name cards of the cars from the movie by the same name. Stencils of different types of cars, match box cars, and car erasers were included in the box to provide inspiration for a young writer. When the unit was over, the cars basket was moved into the block area and was another option for an activity when the child was in the block center. Writing baskets are

commonly used along with the Rice University's Classroom Storytelling Project (Cooper, Capo, Mathes, & Gray, 2007).

The final artifact was the use of writing during dramatic play (Item # 12). In most classrooms, dramatic play was not observed at all. In a few classrooms, dramatic-play-with-print was observed to a great or some extent (19%). One classroom had a medical clinic in the dramatic play area. Three children were dressed up like doctors, with one holding a clipboard and talking to the two doctors about the baby doll's upcoming surgery. Another child had a notepad with an authentic picture of a heart; he was placing an X on all of the places on the heart where they were planning to conduct their surgery. In another classroom, the children were dressed up in animal print clothing and were pretending to be going to school in Africa. One child said an animal name and the other child wrote it on his paper using strings of letters.

Research question three. The third research question investigated whether or not there were any significant differences ($p < .05$) in student engagement in writing experiences by gender and ethnicity. The Education Use of Writing category on the student behavior observation schedule provides the data to answer this question, which is also analyzed for patterns of usage by ethnicity and gender. Table 45 provides the summary statistics for the one-way MANOVA results on student writing practices by student ethnicity and Table 46 provides the results by gender.

A one-way MANOVA was conducted to analyze student use of writing by ethnicity. The six student uses of writing (including "other") were examined in the first one-way MANOVA to determine whether there were any significant differences ($p <$

.05) by ethnicity. The results of the MANOVA yielded a significant difference among ethnicities $Wilkes' \lambda = .815$, $F(3, 211) = 2.43$, $p < .01$. In the follow-up MANOVA, student use of writing by ethnicity was statistically significant for making a book (child-directed), for play with writing (using sensory materials), and participating in teacher guided writing (modeled, shared, or interactive writing) at the $p < .05$ level. There were no statistically significant differences for tracing or copying words, letters, or numbers or for making a book (adult-directed) or for the “other” category.

The *Tukey* post hoc results are reported in Table 45. For *making book (child directed)*, the post hoc results revealed that students of Asian ethnicity made child-directed books more than students of Hispanic ethnicity.

Table 46 reports the results of the one-way ANOVA on student writing practices by student gender. There were no significant differences by gender. A post hoc test was not performed because there were only two categories (male/female) in this question.

Research question four. Question four asks if there are significant differences ($p < .05$) among educational use of writing by the type of school where the student attends (urban, suburban, rural, or private). Percentages of these educational environments by number of students are as follows: 20.9% suburban; 27.9% for both rural and urban; and 23.3% private. Table 47 shows means and standard deviations for this question, as well as the significant differences ($* p < .05$). The Bonferroni post hoc results showed that rural schools used tracing or copying numbers, letters, or words significantly more than suburban or private schools. Suburban schools made adult-directed books significantly more than urban, rural, or private schools. Private schools

made child-directed books significantly more than suburban schools and rural schools. However, even though there was a significant difference in playing with writing using sensory materials and on the “other” category on the MANOVA, the post hoc did not reveal any additional significant differences. Following are the summary statistics for the MANOVA as shown in Table 48.

Table 45. Summary statistics for MANOVA results on student educational use of writing by student ethnicity.

Student Writing Practices	Student Ethnicities					F	n_p^2
	African American <i>n</i> = 32 <i>M</i>	Asian <i>n</i> = 9 <i>M</i>	Hispanic <i>n</i> = 113 <i>M</i>	White <i>n</i> = 61 <i>M</i>	Overall <i>N</i> = 215 <i>M</i>		
Tracing or copying numbers, letters, or words	5.00	4.44	4.40	2.54	3.98	0.28	.10
Making a book (adult-directed)	0.00	2.77	0.46	0.00	0.35	2.61	.64
Making a book (child-directed)	0.56 ^{ab}	6.67 ^a	0.37 ^b	3.11 ^{ab}	1.44	2.73*	.66
Playing with writing (using sensory materials)	11.11	0.00	1.88	2.62	3.56	3.35*	.76
Participating in teacher guided writing (modeled, shared or interactive writing)	1.67	7.33	4.36	0.00	2.80	2.79*	.67
Other	3.47	0.00	1.45	6.03	3.03	1.80	.46

Notes. Wilks' lambda = .815, $F(3, 211)=2.43$, $p < .01$. Means with the same letter are not statistically different as determined by the Tukey post hoc test. * $p < .05$.

Table 46. Summary statistics for ANOVA results on student writing practices by student gender.

Student Writing Practices	Male		Female		F
	M	SD	M	SD	
Tracing or copying numbers, letters or words	3.77	15.05	4.17	14.74	.04
Making a book (adult-directed)	0.47	3.41	0.23	2.39	.36
Making a book (child-directed)	1.13	8.20	1.74	8.70	.28
Playing with writing (using sensory materials)	3.44	17.17	3.67	15.10	.01
Participating in teacher guided writing	1.89	7.67	3.68	13.34	1.45
Other	2.86	11.70	3.19	14.34	.04

Table 47. Differences in educational use of writing by educational environments.

Student Writing Practices	Urban <i>n</i> = 60		Suburban <i>n</i> = 45		Rural <i>n</i> = 60		Private <i>n</i> = 50		F	<i>n_p</i> ²
	M	SD	M	SD	M	SD	M	SD		
Tracing or copying numbers, letters, or words	1.58 ^{ab}	6.0	1.78 ^b	5.76	9.25 ^a	25.2	2.50 ^b	8.94	3.66*	.795
Making a book (adult-directed)	0 ^b	0	1.67	6.31 ^a	0 ^b	0	0 ^b	0	3.97*	.830
Making a book (child-directed)	.67 ^{ab}	5.16	.44 ^a	2.98	0 ^b	0	5.0 ^a	15.9	4.09*	.842
Playing with writing (using sensory materials)	1.08	6.04	0	0	9.42	28.2	2.7	8.46	4.06*	.839
Participating in teacher guided writing (modeled, shared or interactive writing)	3.58	13.7	4.89	10.6	1.67	9.05	1.32	9.33	1.175	.313
Other	.42	3.23	7.78	23.1	3.60	12.3	1.20	6.27	3.24	.739

Note. **p* < .05. *N* = 215.

Table 48. Summary statistics for MANOVA results on student educational use of writing by educational environments.

Student Writing Practices	Educational Environments				F	η_p^2
	Suburban M	Urban M	Rural M	Private M		
Tracing or copying numbers, letters, or words	1.78 ^b	1.58 ^b	9.25 ^a	2.50 ^b	3.66*	.795
Making a book (adult-directed)	1.67 ^a	0.00 ^b	0.00 ^b	0.00 ^b	3.97*	.830
Making a book (child-directed)	.44 ^b	0 ^b	.667 ^b	5.0 ^a	4.09*	.842
Playing with writing (using sensory materials)	0 ^b	9.41 ^a	1.08 ^b	2.70 ^b	4.06*	.839
Participating in teacher guided writing (modeled, shared or interactive writing)	4.89	1.67	3.58	1.32	1.175	.313
Other	7.78	3.60	.417	1.20	3.240*	.739

Note. Wilks' lambda = .763, $F(3, 214) = 2.43$, $p < .01$. Means with the same letter are not statistically different as determined by the Tukey post hoc test. * $p < .05$.

Research question five. This question investigates any significant differences ($p < .05$) among classroom practices of writing (on the Overall Classroom Observation Schedule) by classroom setting (whole class, small group, dyads, individual, traveling, and other) and student engagement. The first part of this question looks at the differences among classroom practices of writing by classroom setting. The second part looks at differences among classroom practices of writing by student engagement. To investigate the between-subjects effects of student engagement in classroom activities

and 15 classroom practices of writing, a univariate analysis of variance was conducted. Table 49 shows that there were no significant differences. A similar investigation looked at another component of student engagement in Table 50; the teacher facilitates engagement in activities and lessons to encourage participation. Again, there were no significant differences to report.

Table 49. Univariate analysis of variance: tests of between-subjects effects (students were engaged in classroom activities).

Source	Type III SS	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Corrected Model	5.199 ^a	29	.179	.941	.574
Intercept	11.672	1	11.672	61.288	.000
Tools	.197	1	.197	1.036	.327
Bookmaking	.084	2	.042	.221	.805
Charts	.006	2	.003	.015	.985
Folders/Journals	.459	2	.230	1.206	.331
Question of the Day	.114	2	.057	.299	.746
Morning Message	.305	2	.153	.802	.470
Writing Baskets	.391	2	.196	1.027	.385
Retell Story	.448	2	.224	1.176	.339
Class Books	.375	2	.188	.985	.400
Artwork	.295	2	.148	.775	.481
Technology	.007	2	.003	.018	.982
Dramatic Play	.431	2	.215	1.131	.352
Writing Center	.116	2	.058	.305	.742
Writing Materials	.047	2	.023	.123	.886
Other	.061	2	.030	.159	.855
Error	2.476	13	.190		
Total	337.000	43			
Total Corrected	7.674	42			

Note. ^aR Squared = .677 (Adjusted R Squared = -.042).

Table 50. Univariate analysis of variance: tests of between-subjects effects (teacher facilitates engagement in activities and lessons).

Source	Type III SS	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Corrected Model	9.113 ^a	29	.314	1.125	.427
Intercept	9.017	1	9.017	32.285	.000
Tools	.076	1	.076	.271	.612
Bookmaking	.293	2	.147	.525	.604
Charts	.237	2	.118	.424	.663
Folders/Journals	.066	2	.033	.119	.889
Question of the Day	.716	2	.358	1.281	.311
Morning Message	.075	2	.038	.135	.875
Writing Baskets	.157	2	.078	.280	.760
Retell Story	.368	2	.184	.659	.534
Class Books	1.535	2	.767	2.748	.101
Artwork	.387	2	.193	.692	.518
Technology	.270	2	.135	.484	.627
Dramatic Play	.448	2	.224	.803	.469
Writing Center	.067	2	.034	.120	.888
Writing Materials	.143	2	.072	.257	.777
Other	.314	2	.157	.563	.583
Error	3.631	13	.279		
Total	284.000	43			
Total Corrected	12.744	42			

Note. ^aR Squared = .715 (Adjusted R Squared = .080).

Discussion

Systematic classroom observations took place in rural, urban, suburban, and private prekindergarten classrooms during the months of February and March 2013, as part of a larger collection of classroom observations. The purpose of this study was to investigate educational use of writing and writing artifacts in authentic classroom settings, using the secondary data collected during the two months stated above.

Observed Writing Opportunities

There were few classrooms of the total 44 classrooms where writing was witnessed during the actual observations. When it was observed, children were mainly tracing, copying, or writing numbers or letters on worksheets in response to teacher-directed activities. In three classrooms, children were making an adult-directed book. In only one classroom, children were making books from their own experiences with rich, teacher-supported guidance. Various types of playing with writing, which included activities like drawing, coloring, painting, and using sensory materials, were observed in several classrooms, but not to a great extent. Typically, one would imagine these activities as part of work stations or centers, but in some classes, even sensory play with shaving cream was observed as a teacher-directed activity, whole group activity.

The final area of investigation in this section was the use of guided writing, which includes modeled, shared, or interactive writing on large chart paper, led by the teacher, typically during a small-group or large-group activity. Bodrova and Leong (2003) suggest that charts like these mediate learning and provide guidance for the child; it is almost like the child can hear the teacher's voice (or one of their friend's voices)

speaking through the charts to help the child remember the collaborative event in which the chart was created.

Four classrooms were observed using some form of guided writing, with one of those classrooms using two forms of guided writing, a thematic review along with child responses through the Daily News, and letter-sound practice while making a list with pictures. Other classrooms participated in one of the following: the Daily News, creating a list of word family words, and constructing the Morning Message. The creating of the word family list was the only activity that took place during a small group. In these classrooms, writing was part of the daily routine, so that opportunities to write occurred on a daily basis at various times during the day.

Observed Writing Artifacts

Due to the observational nature of the current study and the limited time in each classroom, it was assumed that additional writing opportunities were provided in classroom beyond the scope of the observation. Therefore, the section of the *Overall Classroom Observation* was designed to collect additional information on the types of writing opportunities provided in prekindergarten. Since these items did not require an actual observation of the teacher lesson or a student response to the items, the observer looked for evidence of them in the classroom environment. Some of these could be considered writing opportunities and some were writing artifacts. The second question investigated all items in the environment and the third question looked specifically at the items that could be categorized as artifacts.

Writing tools, a writing center, and student journals were most frequently seen as classroom opportunities for writing. The three categories seen least were: retelling a story or fingerplay using props (evidenced by a story retell board, a retell puppet, a flannel board, or other storytelling materials), using writing during dramatic play (evidenced by the presence of lists, menus, order forms, or other dramatic play props in a center that promotes pretending), and responding to a question of the day (evidenced by the presence of actual questions and answers, or the presence of graphs that collected the information).

Only three of the writing opportunities that could be considered artifacts were observed more than 50% of the time: journals were seen most frequently in classrooms (93%); artwork in response to literature was the next highest category (69%), and guided charts were the next (59%). The remainders of the items were observed less than 50% of the time. These artifacts included: materials for bookmaking, class books, writing baskets, and dramatic play. Ray and Glover (2008) suggest that available bookmaking materials encourage a child to experiment with making books and allow the child to express the stories within them that they are anxious to share. Using writing to enhance play has apparently lost its prominence in classrooms, which is surprising in light of the abundant research conducted in the 90s on dramatic play. However, some classrooms see the benefits of allowing children to experiment with the purposes of early literacy through role play, pretend play, role assignment, use of props, and use of writing as important aspects of the dramatic play area in prekindergarten classroom (Bodrova & Leong, 2003; Neuman & Roskos, 2005). For example, the rich and mature dramatic

play that was observed in a few classrooms in the current study revealed a strong focus on writing. The question remains how much more prepared for success in reading and writing will these children be compared with their counterparts who had no exposure to writing with play in prekindergarten?

Statistically Significant Findings

Use of writing by ethnicity. Student use of writing by ethnicity was statistically significant for making a book (child-directed), for play with writing (using sensory materials), and participating in teacher guided writing (modeled, shared, or interactive writing) at the $p < .05$ level with children from Asian ethnicity creating more books than children from Hispanic ethnicity. There were no other significant differences.

Use of writing by school environment. Student use of writing by school environment was statistically significant for making a book (child-directed) and for play with writing (using sensory materials) at the $p < .05$ level with children from private schools creating more books than children from urban schools. There were no other significant differences.

Differences were not found among classroom practices of writing on the *Overall Classroom Observation Schedule* by classroom setting (whole class, small group, dyads, individual, traveling, and other) and student engagement.

Summary

The intent of this study was to investigate writing practices in prekindergarten classrooms within the context of observations of classroom settings and activity types. Concurrently, teacher interactions, student behaviors, and teacher instructional practices,

as well as the extent that activities occur within the overall classroom environment, were observed. Article #2 examined the writing practices of prekindergarten teachers as part of an observation of teacher instruction, student engagement, and the prekindergarten classroom environment.

Two sections of the modified version of the *COS*, the *Educational Use of Writing* in the *PK Student Behavior Observation Schedule*, and *Writing in the Educational Use of Writing* in the *PK Overall Classroom Observation Measure*, provided most of the data for this study. Findings indicated that writing was occurring to a great extent in a few classrooms, while other classrooms revealed little evidence of writing. However, there were not enough classrooms at either extreme to create statistically significant differences.

The most consistently and frequently observed writing activity was tracing or copying letters, numbers, or words. Only one classroom out of the 43 observed showed evidence of class-made books that were child-directed. More evidence of child-directed writing would be expected in the early spring of prekindergarten. However, it is not surprising that it is absent in the classrooms included in the current study, because there were few examples of guided writing, which sets the stage for bookmaking in prekindergarten. In other words, for bookmaking to take place, guided writing needs to be in place as well (Pinnell & Fountas, 2011; Ray & Glover, 2008).

Exceptions to the norm revealed one classroom that had all, and a second classroom had almost all, writing artifacts which were readily observable to a great extent. Environmental observations revealed that writing tools, such as markers, pens,

pencils, and other writing implements were available in almost all classrooms to some or a great extent; however, how often these writing tools were used and for what purposes remains unclear. Even though there was little writing going on in the classrooms when the observations were conducted, the evidence of items on the classroom walls and artifacts in the learning centers or work stations provided more evidence of the types of writing teachers used in their classrooms. From the field notes that captured detail on the types of writing in these classrooms, it appears that teachers use a variety of writing practices in their classrooms as the year progresses, but most likely, not on a daily basis.

CHAPTER IV

DISCUSSION, IMPLICATIONS, AND CONCLUSION

The seven sections in Chapter IV briefly present: (a) an introduction restatement; (b) chapter summaries; (c) limitations of the studies; (d) implications for practice; (e) implications for future research; (f) comparison to previous research; (g) a discussion of relevance to the overall dissertation; and (h) the overall conclusions from the studies.

An Introduction Restatement

Although literature on early literacy development often combines reading and writing as important foundational skills, reading-related skills dominate the time and attention in prekindergarten classrooms, leaving little time and focus for writing. Without a balance of reading and writing, which are mutually supportive skills known to develop concurrently, there is a concern that prekindergarten children are missing an important link in their development. It is possible that without a strong reading-writing link in prekindergarten, children are struggling throughout their primary years in ways that could be prevented by an earlier focus on writing, both in homes and in prekindergarten classrooms.

The above concern is magnified for young ELLs, who are at a higher at risk for poverty, a known deterrent for positive educational outcomes. Even with an increased attention toward improving educational outcomes for children learning two languages, gains are still uneven for young ELLs compared with monolingual learners at the end of their preschool year (Hammer, et al., 2011). Therefore, the current investigation into what takes place in prekindergarten classrooms in the area of early literacy, with the aim

of exploring the amount of writing opportunities provided and how often they are provided, is important to the development, expansion, and modification of future professional development and coaching to enhance the instructional practices all prekindergarten teachers.

Chapter Summaries

Study #1

The first study used secondary data on teacher perceptions of writing practices, collected during the month of December 2012 during a training entitled, “Ready to Write in Prekindergarten,” which was offered at a large regional service center in Texas. Seventy-five teachers (from a total of 90 participants) completed the majority of the 25-minute survey that investigated their perceptions of writing practices in their classrooms. The primary purpose of the first study was to examine the typical writing practices of prekindergarten teachers with the aim of drawing out recommendations for improving writing instruction through professional development and coaching in the classroom. The ultimate aim was to increase best practices in writing in prekindergarten programs and to provide teachers with instructional guidance that is sensitive to the dispositions for learning of their prekindergarten students.

Prekindergarten teachers, who completed the survey, indicated by their choices what they perceived to be important writing activities and the amount of time required to adequately spend on those activities. Descriptive statistics revealed that teachers provide opportunities for their students to write their names, copy letters, numbers, or shapes, use a variety of writing tools, and sign their names on sign-in sheets, art work, graphs,

letters, and lists. Descriptive statistics on the most frequently employed strategies to support student writing showed that the teacher spends instructional time in teaching her students in handwriting skills and capitalization skills, provides opportunities for the students to work at writing centers, reads her own writing to students, and encourages the students to use invented spellings. While there were minimal significant differences for most of the tests, this was most likely due to the fact that the teachers' answers were in every category from almost always to almost never, with very few similarities between teachers. However, from the Factor Analysis of Part IV of the survey, a finding revealed that teachers with more experience in the classroom (11 to 19 years) use writing strategies significantly more than new teachers (0 to 5 years). This is an important finding because it suggests that younger teachers need more assistance and professional development on the use of writing strategies. Professional development providers and literacy coaches in the classroom would benefit from this information so that they might take steps to support teachers at the beginning of their careers, especially in the area of writing.

Another important finding was reported by the teachers themselves, when they stated that handwriting was the most frequently employed strategy to teach writing in their classrooms. While invented spellings were included in this list, the presence of handwriting implies that teachers believe that children need to form letters correctly in order to write. However, it is more important for children to have time to freely express themselves using whatever stage of writing they find comfortable at the time (Dyson, 1988; Sulzby, 1985). Correct spelling and correct handwriting are less important at the

novice stage of writing than the understanding that writing has the real purpose of conveying meaning in the child's own words, using his or her own authentic markings (NAEYC, 1998). It is important that professional development and coaching convey that message.

Study #2

The second study used secondary data from an observational study conducted during February and March of 2013. Systematic classroom observations for this study took place within 43 prekindergarten classrooms in rural, suburban, urban, and private schools in a large area of southeast Texas. The purpose of the second study was to examine the use of writing in authentic prekindergarten classroom settings, as presented or facilitated by the teacher, as employed by the students, and as supported by the environment. One of the aims of the second study, as with many types of observational surveys, was to contribute to the research on what typically happens in prekindergarten programs, and how that information relates to what is currently known about high-quality programs. Information of this type provides direction for making policy and professional development recommendations to advance program development and improvement, as well as accountability. Researchers can also use what is learned to support the enhancement of quality rating systems by fine-tuning the manner in which observational data are collected or by tweaking the instrument to capture the information needed.

One section of the *PK Student Behavior Observation Schedule*, called the *Educational Use of Writing*, and one section of the *PK Overall Classroom Observation*

Measure, entitled *Writing*, provided most of the data for the second study. Findings from the 43 classrooms in the study revealed that in some classrooms writing was occurring to a great extent and other classrooms there was little evidence of writing. However, as in the previous study, there were not enough classrooms at either extreme to create significant differences.

The most frequently observed writing activity was tracing or copying letters, numbers, or words. Only one classroom showed evidence of class-made books that were child-directed. Environmental observations revealed that writing tools, such as markers, pens, pencils, and other writing implements were available in almost all classrooms to some or a great extent. Only one classroom had all writing artifacts to a great extent and another classroom had most of the writing artifacts to a great extent. This was not the case in the remainder of the classrooms.

Even though there was little writing going on in the classrooms when the observations were conducted, the evidence of items on the classroom walls and artifacts in the learning centers or work stations provided more evidence of the types of writing teachers used in their classrooms. As a result of this examination, a few categories on Part 4 of the *PK Overall Classroom Observation Measure* (listing writing artifacts or activities) were seen to some or a great extent in the classrooms. One was the use of journals, employed by 93% of the teachers to some or a great extent, and another was writing centers, which 86% of the teachers used in their classrooms to some or a great extent. However, there was no evidence of how often the materials and artifacts were used or if they were used on a daily basis. These results, as Clark and Kragler (2005)

caution, limit the observer's ability to accurately see the relationship to the children's use of the strategy, which is, of course, the bottom line.

A section on the *PK Student Behavior Observation Schedule* asked the observer to indicate the *Manner* of the child's behavior: on-task, off-task, waiting for teacher, disruptive, or other. This section was difficult to observe, since children were most often observed engaging in on-task behaviors. The difficulty derived from determining if the child was truly on-task or if the child was merely engaging in compliance with the teacher requests or in teacher-pleasing behaviors. For example, the child's motive for appearing to be engaged may have stemmed from the presence of an observer and the desire to do what the teacher asked of him or her, rather than interest in the existing topic or activity. Future researchers using this tool might take this into consideration and may reflect on adding an additional "compliance" item to this category.

Limitations of the Current Studies

Limitations of Article #1

Four potential areas of concern are possible with this study. First, there were a relatively small number of participants compared with the number of the potential pool of participants in the area where the study was conducted. Secondly, the ability to generalize results and conclusions may be limited by a sample of convenience, since this study uses secondary data collected by the participants of a specific training, and may not adequately represent the population as a whole. Thirdly, because secondary data is used, the study is limited to the data that was originally collected. Fourthly, teacher perceptions, as addressed in the review of research may lack validity, may be influenced

by a teacher's desire to respond positively (Cutler & Graham, 2008), and may over-represent the actual practices that occur in classrooms (Cunningham, et al., 2008).

Nevertheless, the survey used in this current study provides basic data and trends regarding the types of writing instruction provided in these prekindergarten classrooms, thus providing a catalyst for understanding and investigating a much larger issue.

Limitations of Article #2

As with the first study, the second study used data collected from a relatively small number of participants compared with the number of the potential pool of participants in the area where the study was conducted. Additionally, because secondary data was used, the study is limited to the data that was originally collected. It would have been more enlightening, for example, if a larger number of observations could have been part of the study, particularly for more suburban schools to be included (which was not possible within the date range of the second study).

The second potential area of concern stems from the very nature of observational studies: the presence of a visitor in the classroom may be viewed as intrusive. Even the most unobtrusive visitor can raise the level of concern or distraction for teacher and students, especially as they notice someone watching and recording their actions.

Validity of observations is an area of concern because of the potential threat of participants altering their typical behaviors, providing an unreliable picture of practices.

The amount of time for each classroom observation raises another potential limitation. It could be argued that the day of the week or the time of day was not indicative of the type of writing instruction that typically occurs in the classroom. It could

also be argued that the observation tool was not inclusive of the types of writing that occur in the classroom on a regular basis. The former problem is moderated by the use of the *PK Overall Classroom Observation Measure*, which lists several types of writing artifacts that could potentially be observed in the classroom. The latter problem is somewhat moderated by the use of field notes, which are able to capture other types of writing that are observable in the classroom, but not included on the list of writing behaviors. In some classrooms, however, writing artifacts may have been hidden from view in individual classroom folders or journals that the classroom teacher did not readily offer to the observer for viewing.

Implications for Practice

Specific needs on the part of teachers with regard to future professional development are implied by this study. One area of need relates to the conceptual framework of intentional teaching. Professional development that focuses on defining intentional teaching strategies and providing application for practice during coaching sessions is of particular importance for prekindergarten teachers. For example, many skills can be modeled or demonstrated during guided writing mini-lessons provided during short (less than five minutes) whole group lessons. By providing guided practice with effective teacher talk on how to make a book, children learn how to work through problems they may encounter on their own during independent practice with bookmaking. Thus, the Gradual Release Model, with the aim of creating independent learners, is essential to the teaching practices of an intentional teacher (Pearson & Gallagher, 1983).

Just as this study seeks to emphasize the balance between reading and writing, a similar balance is needed between adult-guided and child-initiated early literacy strategies. Four-year-old children do not master early literacy skills by flipping through the pages of a book or by simply drawing a picture on a paper. Quality interactions between teachers and children during reading and writing acquisition, such as shared reading or shared writing, maximize the development of emergent literacy skills. Moreover, once teachers have introduced and sufficiently practiced an early literacy strategy using the Gradual Release Model (Pearson & Gallagher, 1983), children need time to construct and reconstruct this new knowledge on their own, possibly through the creation of their own unconventionally written stories.

With regard to the strategies needed for writing development, research is clear on the number of important skills needed to become a writer. Professional development sessions that target these strategies collectively, and then specifically, may help teachers introduce them to their students. For example, parallel training that shows the relationship between shared reading and shared writing, the importance of print referencing, and the relationship of phonological awareness to phonics all highlight the reading and writing connection.

Prekindergarten teachers both desire and seek additional training in the area of writing, as exemplified by the number of participants who attended the training on the day that the survey was distributed, as well as several other sessions that were equally full in the following months from January 2013 to August 2013. High-quality training reintroduces the teachers to the theoretical and conceptual frameworks they studied in

their preservice training by helping them see how these frameworks apply to real-life classroom situations (Molle, 2013). Opportunities to talk about beliefs about teaching writing and to air their concerns about how this can be done within their time constraints and class sizes are important for implementation. Moreover, videos and photographs of practices in place in classrooms will provide teachers with clear examples of how the practices can be implemented. These examples show teachers how to provide developmentally significant practices with their students, rather than teach skills are outside of the zone of proximal development for most of the children in the class. While a prekindergarten student may have the capability of writing (or copying) their numerals from one to one hundred, for example, and may even appear to like to do this kind of activity, it is so very important to use each moment in prekindergarten in a way that will build on, support, and enhance learning that will benefit their future success in school. In addition to learning about the foundational practices from which other skills are built in prekindergarten, high-quality training will help teachers understand how important these early years are for building the dispositions for learning.

The results from Part IV of the survey exposed several items of concern and therefore imply needed changes. Because Part IV was specifically added to the survey to provide more developmentally-rich activities for prekindergarten children as stated in research, it was a surprise to find that many of these strategies were not in use in prekindergarten classrooms. Of particular concern was the lack of attention to family involvement activities, in which children shared what they learned at school with their families. All of these topics were consistently rated by participants as occurring *Almost*

Never. In light of the well-documented and well-known importance of family involvement in a child's education, especially at the preschool level, it is difficult to fathom why these items were consistently rated as *Almost Never*. However, at closer investigation of the particular survey items, several of these items involved sending home class books, class materials, or books in a child's native language. Perhaps the teachers are reluctant to send materials home because they are unsure if these materials will return to class. It is possible that the survey did not accurately capture what the teachers do to involve families in writing activities. Whatever the reason behind the teachers' responses, this topic deserves further investigation, including the creation of specific suggestions for implementation of family involvement activities embedded in professional development sessions.

A second concern was the focus on procedural skills, such as tracing, copying, and forming letters and numbers, and handwriting, which teachers highly value in preparing their children for kindergarten. While procedural skills are important (Puranik, et al., 2011) they are only one facet of writing with young children. Children may benefit from the conceptual processes of retelling a personal experience, story retelling, creating stories that are modeled after familiar children's literature, and writing their own stories (Ray & Glover, 2008). In these latter experiences, children can play with words, use words in new ways, and convey their own individuality through creative expression. Professional development that provides direction on how to teach children to engage in these more abstract skills would benefit prekindergarten teachers.

The results of this survey show a great deal of variability in responses, which leads to the question of what actually drives the decision-making process of prekindergarten teachers in the area of writing. There are a number of possible curriculum models, theoretical frameworks, and philosophies of teaching that can potentially influence the practices of prekindergarten teachers. Even the activities suggested by curriculum models vary in the amount of writing they suggest for children in prekindergarten. It is also possible that many prekindergarten teachers do not have one model or philosophy that guides their practices, but rather select different approaches when they see ideas or activities that appeal to them. It is also possible that teachers do not believe that writing is important in prekindergarten, perhaps because they see writing as something that occurs in the primary grades, after prekindergarten has developed the precursors for writing, such as fine motor development or letter recognition. In light of these possibilities, teachers may benefit from seeing how writing is multi-faceted, with many skills developing concurrently from birth. Professional development may help teachers see how reading and writing are parallel processes, that the development of one supports the development of the other.

Because teachers already see the value of using writing centers and journals, both could be further investigated in future professional development sessions to expand the value of their use in the classroom. For example, teachers could learn how to use a large interactive writing journal during social studies, science, or math lessons with their prekindergarten students as a way to model the use of journals with young children. Masiello and Trivette (2006) suggest that journals can uniquely strengthen the links

between multiple facets of early literacy as children learn to write about their own experiences within a personal context. Additionally, journals provide a distinctive way of documenting a child's progress throughout the school year as the child moves through various stages of writing. Some teachers are substituting journals for bookmaking. Children using bookmaking are encouraged to write a story over several pages, rather than focus on a one-page journal entry (Ray & Glover, 2008).

Yaden et al. (2000) added writing centers to classrooms in their study in order to provide their Spanish-speaking four-year-olds additional opportunities to engage in reading and writing activities and in the same way, are often suggested as an appropriate addition to a preschool classroom (Falconer, 2010; Roskos, Christie, & Richgels, 2003; Schickedanz & Casbergue, 2009; Vukelich & Christie, 2009). A writing center is a special place within the prekindergarten classroom where a variety of tools to write with and materials to write on are organized for easy access for the children. As with journals, a makeover of a writing center could be the focus of a professional development session for prekindergarten teachers. Masiello and Trivette (2006) assert that a child's interests, structured and informal instructional practices, and literacy-rich experiences are three primary influences on early literacy development, all of which might be better if teachers were informed of effective ways to use a writing center.

When research reports that school readiness skills remain below the mean level for Latino children, even after a year in prekindergarten, a pressing challenge is for prekindergarten teachers is to understand what they need to do to reduce and eventually eliminate the achievement gap. A recently published article on the development of

language and literacy skills among Spanish-speaking children suggests that two years in preschool with explicit, high-quality, intense intervention that focuses on developing language and literacy for young ELLs may provide more success in closing the achievement gap (Han, Silva, Vukelich, Buell, & Hou, 2013). This research, along with research by Farver, Lonigan, and Eppe (2009), identify intensity and quality of intervention as playing a key role. Together with professional development on environments and instructional practices, training in how to implement this type of intervention has the potential of helping teachers understand the types of programs needed for all children, especially for children who are struggling. Future research might also investigate any advantages children who have been provided with writing opportunities have over those who have not had those opportunities in prekindergarten.

A final area concern relates to the programs for young ELLs that have been designed to support prekindergarten children in learning English, as reported in the survey and observed in the classroom observations. Some children attend bilingual programs, where Spanish is the predominant language, and English is spoken for a small percentage of the day. Other children attend dual language programs, where English is spoken one day and Spanish is spoken the next. These dual language programs can be dissimilar between school districts; Spanish might be spoken in the morning and English in the afternoon (or vice versa). Regardless of their structure, the intent is to support both English and Spanish as languages of equal value. Recently, the trend is to move away from bilingual programs to all-English programs, typically because the children are not growing in their English-speaking abilities as they progress through the grades and

are simply not ready to transition from Spanish to English by third or fourth grade. Again, this can be very different depending on how it has been structured by the school district. One district may phase out the transitional program in one year, while another many slowly phase out the transitional program, one grade level at a time, until it has been completely phased out. Bilingual programs are being phased out at a rapid rate, in spite of the quantity of research that supports them. It is difficult to know what the implications of such different types of programming will have on our young ELLs as they continue throughout school. As long as these issues remain at the forefront of ELL research, less time will be devoted to foundational instructional strategies in writing, and this is a grave concern.

Implications for Future Research

The first study indicated that teachers perceived many writing activities were taking place throughout the school year in their classrooms. However, few were actually occurring on a daily basis. Because alternatively certified teachers were the largest group of teachers represented by the survey from the first study, future research might investigate the areas in which alternatively certified teachers feel sufficiently prepared and compare that to areas in they need more professional development. Similarly, longitudinal research could be developed to document a group of new teachers as they implement writing strategies in their prekindergarten classrooms with the support of professional development and coaching; this is particularly important in light of the significant differences found between new teachers and more experienced teachers in the factor analysis.

In a similar way, the second study indicated the presence of many writing artifacts in the classroom. However, few of these artifacts were seen in use during the classroom observations. Future research might take a closer look at planned observations during the time that teachers are actually teaching writing to determine how the artifacts were being implemented in classroom instruction. Future use of the modified version of the COS (which includes the writing components) could be fine-tuned by comparing writing use of teachers during specific writing times of the day. In the current study, many of the teachers were not teaching writing during the time of the observation. While artifacts were present in the classrooms of teachers who used writing to some or a great extent, such as class books, artistic representations of responses to literature, or charts from shared reading or writing lessons, it would be interesting and informative to find out exactly what the teachers did during their specific lessons. It would also be interesting to visit the same teacher three times for the purpose of collecting a more complete (and accurate) picture of what is happening in the classroom. There is always the possibility that an observation can be skewed to capture a one-time event (which can be viewed in either a positive or negative light by either the teacher or the observer); thus, multiple observations of the same classroom may provide a more precise picture.

Comparison of Results to Prior Research

Hammer, Jia, and Uckikoshi (2011) provide a comprehensive overview of the gaps in ELL research. Few studies have used systematic observations to examine the extent to which ELLs strategies are implemented in the classroom. Additionally, the

focus of research is more often geared toward ELLs in elementary school than in prekindergarten. In the past five years, many more studies for young children have emerged in research.

As indicated throughout this study, reading and writing have long been paired together as parallel processes on the path to early literacy. However, research studies for young ELLs are heavily favored toward issues related language development, with fewer focused on children's growing literacy abilities (Research Brief #6). When research does focus on early literacy, it is reading and not writing that is addresses, leaving many gaps in writing research. As a result, early childhood educators continue to omit many aspects of writing in prekindergarten, most likely due to their uncertainty of how to address it with young children. Others are hesitant about how much writing to provide and how to best integrate it into an already very busy half-day program. Even with full-day programs, teachers are often tentative about teaching writing, what it should look like, and what to expect of the children in the class.

Notwithstanding, there are many good articles on strategies used with kindergarten or primary teachers that may have implications for prekindergarten teachers. Craig (2006) investigated the use of interactive writing with kindergarteners and reported that writing instruction that supports spelling (invented or conventional) provides a rich content for developing skills that children will need for early reading, such as phonological awareness and alphabetic knowledge. These results support the possibility that writing has the potential of enhancing word reading with kindergarteners and may also affect reading comprehension. The current study investigated writing and

provides a picture of the potential possibilities for writing that may serve as a starting point for teachers who are interested in pursuing professional development or coaching to help them take their next steps. This is particularly true of prekindergarten teachers who are alternatively certified, the largest group of teachers represented in the survey from *Article #1*, and new teachers.

Relevance to the Overall Dissertation

The purpose of this dissertation was to investigate writing practices and writing usage in prekindergarten with the goal of developing, modifying, or expanding professional development opportunities and coaching for teachers using a conceptual model of intentional teaching. The results of the first study showed that teachers perceived that they were using many writing strategies in their classrooms, such as teaching handwriting and capitalization, providing opportunities for children to use the writing center, and participate in shared writing activities.

Overall Conclusions of the Dissertation

This dissertation investigates how teachers are presently using writing in their classrooms. The purpose of the two studies was to examine secondary data of teacher perceptions of writing practices in two ways, first through a self-report study and second through authentic classroom observations. The first study explored writing activities and frequency of use in prekindergarten through the lens of teacher perceptions. The second study used a systematic observation of educational use of writing and writing artifacts that were present in the observed classrooms. This study investigated the results of 75 surveys on writing practices in prekindergarten, as well as observations of 43

classrooms, the teachers in those classrooms, and the 215 students who were observed during the classroom visits. Findings revealed a large amount of variability in practices, time spent on practices, and opportunities for students to explore writing materials. Taken together, these studies contribute to the small, but growing knowledge base of the importance of writing in prekindergarten. Moreover, these studies add to the understanding of the complex nature of writing, the challenges of teacher perception studies, the needs of young ELLs, and the importance in choosing the right tools to assess their needs.

Five writing practices were selected by teachers as activities that they perceived to be important to provide for their children: writing letters in their first names, copying letters or shapes, signing their names on sign-in sheets/art work, participating in Morning Message, and writing their names from memory. Because several of these strategies are related to name-writing, they are supported by current research and can serve as a springboard for future professional development (Molfese, Beswick, Molnar, & Jacobi-Vessels, 2006; Puranik, Lonigan, & Kim, 2011).

The results from both of these studies suggest that while writing has been implemented to a minimal degree in the observed classrooms, there is much more that can be done in the area of writing in prekindergarten. Even with the presence of writing materials, writing centers, and student folders/journals, teachers may benefit from additional strategies on how to use these materials. On the other hand, the focus on instructional skills, such as capitalization and sentence structure in some classrooms,

seems to have taken the place of dramatic play centers, where children can experiment with writing in a manner that suits their developmental interests.

Just as the risk for reading failure involves the interaction between particular student characteristics and the instructional environment (Foorman & Torgesen, 2001), it is suspect that the risk for writing failure is also affected by a mismatch between the reciprocal actions of the teacher and the student and the classroom environment. One of these actions of particular concern is the large amount of whole group instruction that dominates the majority of the 43 prekindergarten programs represented in this study. While whole group instruction has many benefits for building a community of writers, such as providing an opportunity for the children to see writing modeled for them and for gathering together to celebrate the creations of budding writers (to name a few), there are disadvantages to providing large doses of whole group instruction. Because there is typically less active engagement during whole group times, children may become restless and engage in off-task behaviors. The children in this study showed a remarkable ability to remain on task during these whole group sessions. One cannot help but question if this had more to do with the presence of an observer in the classroom than it did with their typical behavior. How on-task were they? Were they being compliant or were they truly active learners? Children at four and five-years-old exhibit many teacher-pleasing behaviors. One cannot help but wonder when their interest in sitting quietly without being actively engaged takes a toll on them. Either way, these issues are worth reflection, both by practitioners and future researchers, and consider what can be done to enhance high-quality programs.

Another concern relates to the programs for ELLs that have been designed to support these prekindergarten children in learning English. Some children attend bilingual programs, where Spanish is the predominant language, and English is spoken for a small percentage of the day. Other children attend dual language programs, where English is spoken one day and Spanish is spoken the next. These dual language programs can be dissimilar between school districts; Spanish might be spoken in the morning and English in the afternoon (or vice versa). Regardless of their structure, the intent is to support both English and Spanish as languages of equal value. Recently, the trend is to move away from bilingual programs to all-English programs, typically because the children are not growing in their English-speaking abilities as they progress through the grades and are simply not ready to transition from Spanish to English by third or fourth grade. Again, this can be very different depending on how it has been structured by the school district. One district may phase out the transitional program in one year, while another may slowly phase out the transitional program, one grade level at a time, until it has been completely phased out.

As indicated in the introduction, reading and writing have long been paired together as parallel processes on the path to early literacy. However, research is heavily favored in the area of reading, leaving many gaps in writing research. As a result, early childhood educators continue to omit many aspects of writing in prekindergarten, most likely due to their uncertainty of how to address it with young children. Others are hesitant about how much writing to provide and how to best integrate it into an already very busy half-day program. Moreover, findings from this study support the assertion

that expectations for writing rarely go beyond structured, direct instruction that is focused on letter formation, rather than open-ended, child constructed stories (Dyson, 2002).

Demographic shifts have shaped the focus of research toward finding more effective ways to promote the educational needs of children who are culturally and linguistically diverse. Even though studies have attempted to answer numerous questions about how to best educate ELLs, many more questions remain. Policy and research recommendations for young ELLs will continue to advance oral language as a key connection to literacy development. Though slow to come to the forefront of literature, an interest in writing for both monolingual and ELLs, is steadily growing.

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APPENDIX A

STUDIES ON TEACHER PERCEPTIONS OF INSTRUCTIONAL PRACTICES IN EARLY LITERACY

Study	Purpose	Participants / Method	Results
Bos, Mather, Dickson, Podhajski, & Chard (2001)	To investigate the perceptions and knowledge of preservice and inservice teachers toward early reading instruction	<p>Two groups of educators: preservice (252) and inservice (286)</p> <p>Preservice teachers were in their last semester of school or were in their student teaching semester</p> <p>Inservice teachers were kindergarten through third-grade general and special educators from approximately 20 school districts</p> <p>Teachers completed a perception survey and a knowledge assessment (The Teacher Perceptions Toward Early Reading and Spelling and the Teacher Knowledge Assessment: Structure of Language)</p>	<p>Both groups expressed positive attitudes toward explicit and implicit code instruction</p> <p>Both groups demonstrated limited knowledge of phonological awareness or terminology related to language structure and phonics</p> <p>Both groups perceived themselves as only somewhat prepared to teach early reading to struggling readers</p> <p>Knowledge of Language Structure: preservice (53 percent) and inservice (60 percent) educators' were unable to answer nearly half of the questions</p> <p>Inservice teachers were more positive about explicit code instruction than preservice educators</p> <p>Preservice educators were more positive about implicit code instruction</p> <p>Findings confirm that the mismatch between what teachers believe and know and what research supports as effective early reading instructions for <u>struggling readers</u></p>

Study	Purpose	Participants / Method	Results
Cunningham, Zibulsky, Stanovich & Stanovich (2009)	<p>To investigate how teachers would allocate their lesson time on literacy-related activities while teaching language arts</p> <p>To determine what teachers know about reading development, processes, and pedagogy</p> <p>To investigate the structure of implicit beliefs about reading instruction; to explore the relationships between those beliefs, their expertise with general or special education students, years of experience, and disciplinary knowledge</p> <p>To investigate teachers' self-reported distribution of an array of instructional practices</p>	<p>121 first-grade teachers from 37 elementary schools in a large, urban school district in the western U. S</p> <p>Language Arts Activity Grid: teachers reported their underlying pedagogical beliefs by explaining the instructional practices they would use during a 2-hour language arts block and the amount of time they would devote to each practice</p> <p>Phonics Knowledge, Orthographic Knowledge, and Children's Literature Knowledge were also assessed</p>	<p>Results indicated that teachers' implicit beliefs were not significantly associated with their status as a regular or special education teacher, the number of years they had been teaching, or their disciplinary knowledge.</p> <p>Subgroups of teachers who highly valued particular approaches to reading instruction (such as children's literature) allocated their time to instructional activities associated with other approaches in vastly different w</p> <p>Practices were not in keeping with current research and policy recommendations</p>

Study	Purpose	Participants / Method	Results
Cunningham, Perry, Stanovich, & Stanovich (2004)	<p>To assess primary teachers' actual and perceived reading related subject matter knowledge</p> <p>To investigate the extent to which teachers determine what they know and do not know related to their reading related subject matter knowledge by examining relationships between actual and perceived knowledge</p>	<p>722 teachers (561 females, 89 males, 72 unreported) of kindergarten through grade 3 from 48 schools in an urban inner-city school system</p> <p>Teachers completed a survey during an inservice session that assessed actual knowledge of children's literature, phonological awareness, and phonics and the teachers' perception of their knowledge</p>	<p>Primary teachers tend to overestimate their knowledge of reading related subject matter, while actually demonstrating limited knowledge of children's literature (i.e., 90% of the teachers could not identify the titles of the most popular children's literature), phoneme awareness (i.e., 20% could not identify the number of phonemes in any of the words presented), and phonics (i.e., 18% were aware of how the consonant speech sounds are represented in the English language system)</p> <p>Findings reported no relationship between the teachers' actual and perceived knowledge</p>

Study	Purpose	Participants / Method	Results
Cutler & Graham (2008)	<p>To determine whether writing programs in primary classrooms reflected a process approach or a skills-based approach to writing instruction, or a combination of both</p> <p>To examine typical writing practices in primary classrooms with the purpose of making recommendations for improving instruction</p>	<p>A random sample of 178 primary grade teachers (97% female) from across the United States</p> <p>Participants completed a survey about their classroom instructional practices in writing</p>	<p>Most of the participating teachers (72%) combined elements of process writing and skills instruction in their writing instruction</p> <p>90% reported using most of the writing instructional practices; however, there was considerable variability between teachers in how often they used specific practices.</p> <p>The authors provide seven recommendations for reforming primary grade writing instruction: increasing time students spend on writing, especially expository text, balancing time between writing strategies and skills, fostering motivation for writing, developing home-school connections, using computers with writing, and improving professional development for writing</p>
Green, Peterson, & Lewis (2006)	<p>To assess the extent to which early childhood educators engage children in literacy-building activities</p> <p>To identify educator or programmatic characteristics associated with the promotion of early literacy activities in child care centers</p>	<p>180 surveys were completed by teachers during regional training events in a large southern state in April and July 2004</p> <p>Participants provided demographic information and completed a 23 item survey</p>	<p>Children engage in a number of literacy-building activities as reported by the teacher surveys, but the frequency of engagement in minimal</p> <p>Availability of print materials, educator confidence in the knowledge base provided through literacy skills instruction, and the class size of a program were found to influence how educators promote language and literacy</p> <p>Specific information on how children engage in the activities is not provided (i.e., two thirds of the teachers reported that children engage in writing exercises, but what was involved in the exercises is not mentioned)</p>

Study	Purpose	Participants / Method	Results
Hovland, Gapp, & Theis (2011)	To examine preschool and kindergarten teachers' perceptions of what children need to distinguish when encountering print and to identify the strategies these teachers use to assist young children in distinguishing the characteristics of print.	<p>Twelve participants (preschool and kindergarten teachers) from three rural locations in the Midwest: Eastern South Dakota (4), Western South Dakota (4), Eastern Wyoming (4).</p> <p>Qualitative Case Study Method</p> <p>Participants completed a structured questionnaire to answer two questions about what kindergarten teachers believe young children need to distinguish when encountering print and what teachers do to assist students in distinguishing the characteristics of print; and analyzed writing samples to describe what they felt the child understood about print</p> <p>Two preschool and two kindergarten teachers in each area were visited for an observation of their classroom practices</p>	<p>The participants identified 12 distinguishing characteristics of print: purposeful print, pictures/words correspondence, letters/words convey messages, sounds can be represented by letters, recognition and formation of letters, letters make words, letter sequence, directionality, spacing, capital and lowercase letters, letter order within words, writing is used for various purposes.</p> <p>The participants identified 14 teaching strategies, with four directed related to writing: providing opportunities for shared writing, providing writing opportunities, practice writing letters, handwriting program, and four were related to writing : emphasizing letters, literacy centers, word work, emphasizing letter-sound associations</p> <p>Observations showed evidence of effective print-focused instruction during reading, but writing went unnoticed as a way to support <u>learning to look at print.</u></p>
Mather, Bos, & Barbur (2001)	To investigate the perceptions and knowledge of teachers at two professional levels, preservice and inservice, toward early literacy instruction for students at risk for reading failure	<p>293 preservice elementary education majors; 131 inservice teachers, who were employed (for at least three years) as kindergarten through grade 3 teachers at four metropolitan and six rural elementary schools in the Southwest Teachers completed a perception survey and a knowledge assessment (The Teacher Perceptions Toward Early Reading and Spelling and the Teacher Knowledge Assessment: Structure of Language)</p>	<p>Teachers are not adequately prepared to provide early, systematic instruction in skills known to improve early reading and spelling in at-risk students and students with disabilities, such as phonological awareness and letter-sound correspondences</p> <p>The authors discuss increased professional development to address these areas of need</p>

Study	Purpose	Participants / Method	Results
Stellakis (2012)	To determine kindergarten teachers' perceptions about the skills and knowledge of early literacy that they consider important for preschool-aged children because of their relation to practice and for planning future inservice sessions.	<p>19 female Greek kindergarten teachers from Syros Island, Greece, who taught children 4-to-6-years old</p> <p>Data were collected during a one hour inservice session from a series of 70-hour, 10-day, 6 hours per day sessions. Teachers met in groups to create a concept map of early literacy practices and then presented the map to the rest of the teachers; the discussion and presentation were recorded</p> <p>Data were analyzed by coding elements from the Greek curriculum as recognition literacy (phonological awareness, letter/sound, use of punctuation) action literacy (reading activities with active participation of children), or reflection literacy (deriving information from different sources and understanding writing as a means of communication for transfer of information and development of ideas)</p>	<p>Kindergarten teachers report beliefs that veer from the emergent literacy practices (as stated in the official curriculum, adopted in 1999) by teaching conventional reading and writing through isolated, skill- orientated, code-breaking activities</p> <p>All the groups demonstrated in their presentations the idea that literacy is connected to communication and participation in social contexts, but did not mention reading activities in the home or at school, the conceptual or procedural knowledge of written language, or the role of the teacher as a mediator of literacy</p> <p>The author questioned how these beliefs translated into practices in the classroom</p>

Study	Purpose	Participants / Method	Results
White, K. M. (2013)	<p>To examine associations between quality of the teacher-child relationship (defined as teachers' perceptions of closeness and conflict and children's feelings about teachers) and children's writing quality in kindergarten and first grade. Children's receptive language was also investigated as a moderator of these associations</p>	<p>Teachers (total of 20) in kindergarten (8) and first grade (12) teachers and their students (65 kindergarten; 65 first grade); 6-10 total child participants within each classroom were randomly selected to include 3-5 struggling readers and 3-5 non struggling readers</p> <p>Teachers completed the self-report survey, entitled Student Teacher Relationship Scale, Short Form, which measures teacher-child relationship quality, while students completed the Feelings About School Scale; the study only used the scale of children's feelings about teachers</p> <p>A whole-class observation of the teacher's literacy block was conducted to measure the teachers interactive or didactic teaching</p> <p>20 minute block with 4-5 minute passes of 30 seconds each; teaching behaviors in each pass was recorded as present or absent</p> <p>Children were asked to complete a <u>descriptive writing to a picture prompt</u></p>	<p>Teacher-child conflict, revealed by children who lacked the support of a positive teacher-child relationship, was significantly associated with children's writing quality, after accounting for grade level, initial reading status, and type of instruction</p> <p>The authors posit that children were not able to take advantage of learning opportunities because of this lack of relationship and therefore writing performance was impacted</p> <p>Reports of relationship quality from the child's perspective were not correlated with teacher reports of relationship quality</p> <p>The Feelings about School Scale reported little variability and was positively skewed</p>

APPENDIX B

RESEARCH ON WRITING IN PREKINDERGARTEN

Study	Purpose	Participants / Method	Results
Aram (2010)	To compare the parenting styles of fathers and mothers during their interactions with their children on writing activities	<p>51 middle-SES two-parent Israeli families of 26 boys and 25 girls ($M= 59.2$ months) who were attending an Israeli kindergarten for 5½ hours per day, six days a week</p> <p>Parents were videotaped during writing sessions (mother and father on different days) as they instructed their children to write three different categories of words: gender, rhyme, and referent size</p> <p>Parents were instructed ask their children to write the words depicted on each card; parents were invited to help their children in the way they felt was best</p> <p>Videotapes were analyzed by the types of guidance the parents provided: graphophonemic, printing, demand for precision, and reference to orthography and the types of support in general teaching measures: cooperation, task perception, <u>reinforcements, and duration</u></p>	<p>Compared with fathers, mothers guided children through a more detailed writing process in a more cooperative atmosphere (suggesting that mothers were more process oriented and fathers were more task oriented)</p> <p>Fathers and mothers within a family tended to display common trends when supporting their children in writing words</p> <p>Helping children understand graphophonemic mapping (analyzing each sound) and guiding them in printing the letter properly are correlated with the children's early literacy measures</p> <p>Early literacy level is also related to mothers' reference to the Hebrew orthography and to mothers' tendency to refer to the writing task as collaborative</p>

Study	Purpose	Participants / Method	Results
Aram & Biron (2004)	<p>To investigate what the daily literacy interactions of preschoolers should be to equip them for reading and writing acquisition at entrance to formal schooling</p> <p>To compare the contributions of two early literacy interventions: general competencies via joint storybook reading and linked activities and alphabet skills via joint writing</p>	<p>71 low SES preschoolers from a township in central Israel participated in evaluation of the interventions: 35 in the reading program ($M=45.19$); 36 in the writing program ($M=46.05$); 24 in the control group ($M=45.48$)</p> <p>The children were tested at the beginning and at the end of the school year, in: phonological awareness, word writing, letter knowledge, orthographic awareness, listening comprehension, receptive vocabulary, and general knowledge.</p> <p>Each child participated in 66 tutoring sessions provided by student mediators who were trained in either the reading or writing intervention</p> <p>Games and creative activities were provided in both programs.</p> <p>The writing program encouraged letter knowledge, phonological awareness, and functional writing activities.</p> <p>The reading program focused on language and exploring major book concepts using 11 children's books</p>	<p>Results indicated that children in the two literacy programs progressed significantly more than the control group on phonological awareness and orthographic awareness, but the writing group significantly outperformed both the joint reading group and the control group on phonological awareness, word writing, orthographic awareness, and letter knowledge.</p> <p>Younger children (aged 3–4 years) gained from literacy programs as much older children (aged 4–5), on all the assessed measures</p>

Study	Purpose	Participants / Method	Results
Aram & Levin (2004)	<p>To investigate the role of maternal writing mediation as a possible predictor of later literacy development</p> <p>To investigate the relations between children's literacy in low SES kindergarteners and their literacy achievements in school 2½ years later in second grade (helping children write a list of names for a birthday party)</p>	<p>Original study: 41 Hebrew children (19 boys and 22 girls) in kindergarten</p> <p>Current study: 38 of 41 original participants (33 in second grade; 5 had been retained in first grade)</p> <p>Children remained with the same teacher for their first and second years of school (customary in Israel)</p> <p>Two early literacy tasks (Hebrew) were administered to kindergarteners individually over four sessions: a word-writing task and a word definition task</p> <p>Two maternal mediation tasks were videotaped in the home on two occasions: a word-writing task and a mediation task</p> <p>Current study: Researchers administered four new literacy tasks over the last month of the school year during two sessions per child: two reading comprehension tasks (story and sentence), two spelling tasks (production and recognition), plus one of the same tasks given in kindergarten 2 ½ years earlier</p>	<p>Early, quality maternal writing mediation, more than background variables (SES) and literacy development in kindergarten, impacted literacy development 2 ½ years later</p> <p>Quality maternal mediations included a clarification of rules, expansion of knowledge about the alphabetic system, and the provision of tools to cope with future literacy tasks</p> <p>High-quality mediation helps a child become an efficient literacy learner</p>

Study	Purpose	Participants / Method	Results
Bus, Both-de Vries, de Jong, Sulzby, & deJong (2001)	To investigate if young children use previous knowledge of writing when composing written text or if they replace previous knowledge with invented spelling when instruction is specifically provided	Study One: Eight Dutch kindergarten children (mean age: 66 months) with emergent writing skills Two series of case studies	<p>Earlier forms of writing (strings of letters, letter-like forms) provide an advantage to children when they are composing stories that supersedes specific instruction in invented spelling</p> <p>Story writing causes children to struggle to integrate known with newly presented facets of knowledge about writing; the researchers hypothesize that this struggle may advance children's understandings of writing</p> <p>Children continue to struggle to integrate earlier forms of writing with invented spelling until they have some fluency in letter-sound knowledge</p> <p>Results suggest that children develop writing through a process of integration of facets of writing in their repertoires, the older with the newer, rather than by <u>replacement of one facet with another.</u></p>

Study	Purpose	Participants / Method	Results
Clark & Kragler (2005)	To determine the effect of incorporating writing materials in all areas of the preschool classroom on the early literacy development of young children from low-income families.	<p>Researchers worked with six teachers in three preschool classrooms over the course of one year, including 34 children (16 girls, 18 boys)</p> <p>Data included: Three classroom observations (fall, winter, spring); two classroom inventories of literacy materials (fall and spring); two classroom inventories of literacy materials (fall and spring); one teacher interview (conducted in the spring) to examine teacher's perceptions of children's literacy behaviors and teachers' beliefs about literacy learning (interviewed in teams of two)</p> <p>Children's literacy development (writing and phonemic awareness) assessed (in the fall and spring) using the Test of Early Reading Ability (TERA)</p> <p>Interventions included: Professional development sessions with plans for incorporating literacy into the <u>environment</u></p>	<p>Teachers incorporated more literacy materials in their learning centers as a result of the study (to differing degrees), including materials to allow children to express themselves through writing</p> <p>Gender differences, and differences in classrooms were found, based on the level of implementation; however children showed progress in literacy development</p>

Study	Purpose	Participants / Method	Results
Diamond, Gerde, & Powell (2008)	To investigate the relationship between young children's growth in writing and knowledge of letters	<p>Researchers scored name writing on a 9-point scale, where 1 = scribbling, and 7 to 9 = name writing using letters only.</p> <p>Process aspects of name writing were scored on a 6-point scale to measure linear orientation and letter case</p>	<p>Medium correlations ($r = .40-.45$) across the preschool year between children's name writing skills and knowledge of letter names</p> <p>The letter writing and process scores were highly correlated ($r = .77$)</p> <p>Letter formation aspects of name writing overlapped with other holistic features of the child's writing repertoire</p>
Drouin & Harmon, (2009)	<p>To explore the relationship between name writing and letter knowledge in children's early literacy development</p> <p>To investigate whether name writing ability is a useful developmental indicator</p>	<p>114 children (59 males and 55 females with M age = 4 years, 5 months) were recruited from five local child care centers in the Midwestern United States</p> <p>Children were given a battery of literacy assessments</p> <p>to explore the interplay between name writing and letter knowledge in early literacy learners</p>	<p>A moderate to high relationship between name writing and children's letter knowledge was found.</p> <p>Children with greater name-specific letter recognition, but poorer name writing scores, had significantly higher letter knowledge scores than the children with superior name writing scores (but poor name-specific letter-recognition scores).</p> <p>Results from this study suggest children's conceptual knowledge (of letter names, letter sounds, or the alphabetic principle) should not be assessed through knowledge of one's own name.</p>

Study	Purpose	Participants / Method	Results
Dunsmuir & Blatchford (2004)	<p>To examine predictors of writing competence in children 4- to 7-years old: the relationship between home variables and writing development in preschool children; the associations between child characteristics and writing development, and the areas of continuity and discontinuity between variables at home and at school, and influences on subsequent writing development</p>	<p>60 children attending four urban primary schools</p> <p>Factors that could potentially influence writing development were categorized in four stages: preschool, school entry, school, and outcome.</p> <p>Methods: writing samples, semi- structured interviews, questionnaires, observation schedules and standardized assessments</p> <p>Multiple regression analysis was used to assess associations between measures and continuity over time</p>	<p>Variables at school entry with a significant association with writing proficiency: mother's education, family size, parental assessment of the child's writing ability and a measure of home writing activities.</p> <p>Child characteristics significantly associated with writing at age seven: season of birth, vocabulary score, pre-reading skills, handwriting and proficiency in writing name</p> <p>Home writing activities were the only preschool variable still significant at the age of seven</p> <p>Student attitudes to writing were consistently found to be significantly associated with writing competence</p>

Study	Purpose	Participants / Method	Results
Justice, Pence, Bowles, & Wiggins (2006)	<p>To investigate four hypotheses on how children learn alphabet letters:</p> <p>(a) children learn letters in their own names before other letters</p> <p>(b) children learn the first letters of alphabet sequence before letters that occur later in the alphabet sequence</p> <p>(c) children learn letters with similar letter-name pronunciation before they learn letters for which the name of the letter is not in the letter's pronunciation</p> <p>(d) children learn letters which are the corresponding phonemes are typically learned early in phonological development</p>	<p>339 four-year-old children ($M = 56$) from 16 public preschools in Virginia</p> <p>Children were given the Alphabet Knowledge subtest of the <i>Phonological Awareness Literacy Screening-PreK</i> (PALS-PreK)</p> <p>Method: Multilevel logistic regression</p>	<p>All four hypotheses were confirmed: some letters are advantageous and influential by the order in which they are learned</p> <p>B (55%), X (48%), O (44%) were known by the most children; V, U, N, G were known by the fewest children</p> <p>37 % of children knew the letters in their first or nickname; 25% did not.</p> <p>Children were 1.5 times more likely to know the letters in their own first names, and 7.3 times more likely to know their first initials</p> <p>Children were 1.02 times more likely to know a letter one position earlier in the alphabet and 1.5 times more likely to know A than Z.</p> <p>Children were 1.8 times more likely to know letters with similar letter-name pronunciation and 1.09 times more likely to know letters with matching consonantal phonemes</p> <p>Findings reported that extrinsic and intrinsic factors influence children's learning of the individual letters. Children learn letters through environmental exposure (they see their names in print and therefore learn them earlier) and through phonological features (which children learn through instruction)</p> <p>There were strong effects for the letters contained in children's own names (particularly the first initial), and more modest yet consistent effects for the other hypotheses</p>

Study	Purpose	Participants / Method	Results
Kendrick & McKay (2004)	<p>To investigate young children's use of a variety of sign systems, in particular, their drawings about reading and writing, to explore perceptions and understandings of literacy</p> <p>To explore how drawing affords opportunities for young children to communicate their literacy knowledge and experience</p>	<p>First and second grade children (five- and six-year-olds) from two primary schools in urban Canada</p> <p>School 1: 14 children in Primary 1 (10 girls and 4 boys) and 13 children in Primary 2 (8 girls and 5 boys)</p> <p>School 2: 19 students in Primary 1 (7 girls and 12 boys) and 21 students in Primary 2 (13 girls and 8 boys)</p> <p>Children were asked a series of questions in a group discussion about the kind of reading and writing that they do inside and outside of school and were then asked to draw about those experiences</p> <p>Researchers interviewed children about their drawings; the unit of analysis was the literacy event depicted in the drawings</p> <p>Literacy events were coded according to: social settings, reading and writing practices and genres, domains, and social identities</p>	<p>Findings reported that understanding of children's complex language and literacy knowledge can be enhanced through visual representations</p> <p>The authors reported that children were able to show the full range of their experiences, including sensory representations, the way they see themselves as readers and writers, and their feelings and attitudes</p>

Study	Purpose	Participants / Method	Results
Kim (2011)	To explore how young children, engaged in the meaning-making process, use drawings and other semiotic tools as multimodal mediators (movement, talk, drawing, art,dance, music, drama, storytelling, construction and mathematics) for representing experience, feeling and knowledge	11 Korean-Canadian who were bi- or tri-lingual in Korean, English and/or French, aged four-to-six Data collection methods: weekly descriptive field notes, collected artifacts, transcriptions of semi- structured interviews and surveys of students and their parent(s), the researcher’s reflective research journals, informal conversation and videotaped or audio taped observation in the classroom throughout the 2005–2006 school year. Cyworld, a South Korean Community website was used to facilitate interactions of participants through dialogue journals (outside of class time)	Children’s literacy activities were socio-culturally embedded Children situated and created meanings by integrating drawings, language(s) and other semiotic tools while participating in joint literacy activities with their teacher and peers. Literacy practices were beyond individual acts of reading and writing of their language(s); reading, writing, listening and speaking were embedded in social practices Drawings were viewed as a psychological tool for understanding and representing important aspects of their own experiences in terms of social, cognitive and affective aspects. <u>The study considers the implications of Vygotskian perspectives on literacy development (i.e., Children’s use of reading and writing comes from their need)</u>
Levin & Aram (2013)	To investigate invented spelling as one of the early literacy mediating routines to determine the process by which it promotes early literacy.	197 kindergarteners, 88 boys and 109 girls; mean age of 5 years, 6 months, recruited from five kindergartens in urban, low SES neighborhoods in Israel Researchers used a teacher-reported scale to obtain demographic information, a teacher-rating of students’ self regulation, and five measures to examine literacy skills of: letter names, letters for sounds, segmentation, <u>spelling, and decoding</u>	Mediation of invented spellings can enhance early literacy knowledge of letter names and sounds, segmentation, spelling, and decoding of words The process-product mediation revealed higher short- and long-term gains compared with the other three approaches; this includes explanation and illustration of the multi-step, circular process (i. e., process of grapheme-sound mapping; and product of the display of correct spelling)

Study	Purpose	Participants / Method	Results
Levin & Bus (2003)	To examine how writing is based on drawing	<p>Israeli and Dutch preschoolers between the ages of 28–53 months old</p> <p>Preschoolers were asked to draw and write, to classify their products as drawing and writing, and to decide what they had drawn or written</p> <p>Mothers of the preschoolers Israeli and Dutch mothers classified the products</p>	<p>Recognition of drawings as drawings preceded recognition of writings as writings</p> <p>Writing and drawing scores were significantly correlated</p> <p>Before children can write conventionally, they communicate meaning through drawings-like devices: they draw print and then progress to drawing that becomes more writing-like</p> <p><u>Findings suggest the importance of drawing as a representational— communicative system</u></p>
Levin, Both-De Vries, Aram, & Bus (2005)	To examine the development of children’s writing of their own names as compared to their writing of dictated words	<p>Children, who were immersed in Hebrew or Dutch, and ranged from 2 to 5 years of age, were recruited from low to high socioeconomic status families</p> <p>Data were analyzed from four data sets collected in three studies; in each study children were asked to write their names and a list of dictated words</p>	<p>From a young age, children wrote names on a higher level than other words</p> <p>Name writing improved with age more rapidly than word writing across the whole age range</p> <p>Intercorrelations between word writings, corrected for age, were generally higher than the correlation between word and name writing</p> <p>Findings suggest that children exhibit a unique approach to the writing of their own name, irrespective of other background variables</p> <p><u>Children’s advanced skill in writing their name may suggest that name writing promotes the development of writing in general</u></p>

Study	Purpose	Participants / Method	Results
Molfese, Beswick, Molnar, & Jacobi- Vessls (2006)	To investigate the relations between letter naming and word reading and writing skills (letters, numbers, and first names) in preschool children	<p>79 preschool children (<i>M</i> age = 56 months)</p> <p>55 of the 79 children were enrolled based on income-eligibility; 23 attended the same programs as tuition-paying students</p> <p>Assessed children in the fall (over several days on cognitive and vocabulary measures, letter naming, word reading, writing, and copying of lines and shapes, letters, numerals</p> <p>The writing tasks consisted of name- writing, writing letters to a dictation task, number writing to a dictation, letter copying, and number copying</p>	<p>Children possessed foundational skills in letter naming, writing, and copying, upon which later skills could be built</p> <p>Children with high letter-naming scores also had higher letter writing scores (dictated, copied from a list, or writing letters in their names) and number writing scores, with the highest writing scores found for first- name writing.</p> <p>Implications are suggested for preschool teachers in impacting later reading skills by developing procedural knowledge skills (letter- name and letter-sound skills, phonological awareness, and learning letter- and name-writing skills) during the preschool years</p> <p>Although not assessed, results indicated some evidence of the use of letter-sound knowledge in addition to letter-naming skills</p>
Molfese, Beswick, Jacobi-Vessels, Armstrong, Culver, White, Ferguson, Rudasill, & Molfese (2011)	To investigate the differences in children's writing knowledge in preschool and in kindergarten by comparing name writing and letter writing scores with letter and word reading scores from preschool to kindergarten	<p>286 children (157 female; 129 male)</p> <p>Compared two rubrics for scoring writing, a rubric based on multiple components (i.e., letter formation, orientation on the vertical axis, left-right orientation, and correct letter sequence) with a rubric based on only one component (letter formation)</p>	<p>Results showed mostly developmental changes; writing scores varied widely in name writing and in letter writing at all three of the comparison times</p> <p>Letter writing scores were more strongly related to letter and word reading scores than name writing scores</p>

Study	Purpose	Participants / Method	Results
Piasta & Wagner (2010)	To investigate the effect of letter name-to-sound on the alphabet learning of preschoolers	<p>Four private childcare centers in a mid-sized Southeastern city participated in the study.</p> <p>Consent forms were distributed to parents of English-speaking, 3- and 4-year old children, who had little familiarity with alphabet letters.</p> <p>Preschool-aged children ($n = 58$) were randomly assigned to receive instruction in an 8-week curriculum which focused on letter names and sounds, letter sounds only, or numbers (control)</p>	<p>Findings revealed that children were most likely to learn the sounds of letters whose names included cues to their sounds after receiving letter name and sound instruction; this was regardless of phonological processing skills.</p> <p>Children with higher phonological skills showed similar effects in the control situation</p> <p>The results of this study are consistent with previous studies</p>
Puranik & Lonigan (2009)	<p>Concurrent purposes:</p> <p>To examine the development of written language across different writing tasks</p> <p>To investigate how writing features develop in preschool children</p>	<p>372 preschoolers (3-5 years old) in north Florida who were attending private and public preschool classes and private child care centers</p> <p>30 – 3s (M age = 42.6 months)</p> <p>201 – 4s (M age = 55.73 months)</p> <p>141 – 5s (M age = 62.04 months)</p>	<p>Children learn a great deal about writing and spelling between 3- and 5- years-old, making significant growth in composing abilities</p>

Study	Purpose	Participants / Method	Results
Puranik, Lonigan, & Kim (2009)	To investigate if and how emergent literacy skills (alphabet knowledge, phonological awareness, print knowledge) contribute to preschool children's emergent writing skills (name-writing, letter-writing, and spelling)	296 preschool children aged 4–5 years. Administered a series of emergent reading and writing tasks, including those related to name-writing, letter-writing and spelling	<p>Specific skills positively contributed to name writing (print knowledge and letter-writing skills), while other skills contributed positively to letter writing (alphabet knowledge, print knowledge, and name writing)</p> <p>After controlling for age, parental education, print knowledge, phonological awareness, and letter-name and letter-sound knowledge, both name-writing and letter-writing skills made significant contributions to the prediction of spelling</p> <p>When letter-writing and name-writing skills were considered together, letter-writing abilities alone made a significant distinctive contribution to the prediction of spelling</p>

Study	Purpose	Participants / Method	Results
Puranik & Lonigan (2012)	<p>To investigate whether preschool children's name-writing proficiency set them apart from others on other emergent reading and writing tasks</p> <p>To examine the effect of name length on preschool children's emergent literacy skills including alphabet knowledge and spelling.</p>	<p>Study one—296 preschool children aged 4–5 years.</p> <p>Study two—104 preschool children</p> <p>Administered a series of emergent reading and writing tasks, including those related to name-writing, letter- writing and spelling</p>	<p>Name writing brings to light information about children's emerging understanding of both expressive and receptive alphabet knowledge and knowledge of letter-sound relationships</p> <p>In study one, the more advanced name writers outperformed the less advanced name writers on all emergent literacy measures, regardless of length of name</p> <p>In study two, the more advanced name writers outperformed the less advanced name writers on the alphabet knowledge and spelling measures</p> <p>Name writing proficiency appears to be associated with preschool children's developing emergent literacy skills.</p> <p>Name writing reflects knowledge of some letters rather than a broader knowledge of letters that may be needed to support early spelling</p>
Robins & Treiman (2009)	<p>To explore whether and how parents and their 1.5- to 5-year-old children talk about writing (e.g., the similarity between print and speech or the difference between <u>writing and drawing</u>)</p>	<p>607 participants, who had been recorded during the target dates, were included in the database on the CHILDES website.</p> <p>Conducted six analyses using the Child Language Data Exchange System (CHILDES)</p>	<p>Results indicate that parent speech includes these types of information, (e.g., the similarity between print and speech or the difference between writing and drawing) but young children sometimes confuse writing and drawing in their speech.</p>

Study	Purpose	Participants / Method	Results
Treiman, Cohen, Mulqueeny, Kessler, & Schechtman, (2007)	To examine young children's knowledge about the visual characteristics of writing, specifically personal names	<p>Conducted four experiments with young preschoolers, older preschoolers, and kindergarteners.</p> <p>Children were shown cards of letters, their names, etc.</p> <p>For example, in one experiment children were asked to choose which card looked like their name and explain why.</p> <p>In another experiment, children were shown five cards with a name on each card. Children were asked to identify which one looked right, choosing from a name that was written <u>vertically, horizontally, randomly, etc.</u></p>	<p>Children were knowledgeable about their personal names and the visual characteristics of writing</p> <p>Children younger than 4 years of age showed some knowledge about the horizontal orientation of English names, the Latin letters that make them up, and their left-to-right directionality.</p> <p>Preschoolers also had some familiarity with the shapes of the letters in their own first name, especially the leftmost letter.</p> <p>Knowledge of the conventional capitalization pattern for English names emerged later, after a period during which children preferred names in all uppercase letters</p>

APPENDIX C

OBSERVATIONAL STUDIES IN PREKINDERGARTEN

Study	Purpose	Participants / Method	Results
Downer, López, Grimm, Hamagami, Pianta, & Howes (2012)	<p>To examine the Classroom Assessment Scoring System (CLASS), commonly used to assess teacher-child interactions, for the extent of applicability to classrooms serving ethnically and linguistically diverse students</p> <p>Three types of teacher-child interactions were investigated: emotional support, classroom organization, and instructional support</p> <p>To determine if social, math, and literacy outcomes were predicted equally well for Latino and DLL children as with monolingual children</p>	<p>CLASS observations of teacher-child interactions were conducted in 721 state-funded pre-k classrooms across 11 states</p> <p>Direct assessments and teacher ratings of social, math, and literacy outcomes were collected for four randomly selected children in each classroom</p>	<p>CLASS observations factored similarly across pre-k classrooms with different Latino and DLL compositions and predicted improvements in school readiness regardless of a child's Latino or DLL status</p> <p>As an assessment of the quality of teacher-child interactions in prekindergarten settings, the CLASS functions equally well when used with Latino children, regardless of the proportion of children or language diversity</p>

Study	Purpose	Participants / Method	Results
Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, Burchinal, & Early (2008)	<p>To investigate the development of academic, language, and social skills of prekindergarten students</p> <p>To examine the extent of the relationship between children’s development and three approaches for evaluating the quality of prekindergarten programs: standards of quality, the classroom environment, and teacher- child interactions</p>	<p>2,439 children enrolled in 671 state- funded prekindergarten classrooms in 11 states</p> <p>Program-quality was measured using nine standards proposed by NIEER</p> <p>Observations of the PK environment were measured using ECERS-R</p> <p>Observations of quality teacher- child interactions were measured using the CLASS</p>	<p>None of the minimum standards recommended by NIEER, or the nine-item NIEER quality index, were consistently associated with measures of academic, language, and social development during pre- K</p> <p>PK programs included in the study had received funding to improve program quality in the past and this may have led to the lack of significance in the study</p> <p>There was a positive association between quality PK environments and the children’s development of expressive language skills on the ECERS-R</p> <p>Higher quality instructional interactions were positively associated with all measures (five) of academic or language skills on the CLASS</p> <p>Higher quality emotional interactions were associated with teachers’ ratings of higher social competence and lower problem behaviors on the CLASS</p> <p>Implications for planning improvement efforts for existing programs and developing initiatives for new programs should address teacher-child interactions</p>

Study	Purpose	Participants / Method	Results
Phillips, Gormley, & Lowenstein (2009)	<p>To examine and compare classroom environments and experiences in Oklahoma's pre-K program with other pre-K/Head Start samples</p> <p>To examine teacher and classroom characteristics which were associated with variation in children's classroom experiences</p>	<p>106 pre-K classrooms in Tulsa, Oklahoma</p> <p>Observational study provides descriptive data on children's classroom experiences, including climate, exposure to instruction,</p> <p>Compares Tulsa teachers with a similarly educated multi-state sample of Pre-K and Head start classrooms</p> <p>Observation tools: CLASS Child Engagement section of the Emerging Academics Snapshot or CE-EAS</p>	<p>Tulsa Pre-K and Head Start classrooms received significantly higher scores for various dimensions of instructional support and classroom organization with quality of instructional support lower than emotional support</p> <p>Teachers spent more time to academic instruction, especially activities to teach literacy and math</p> <p>Head Start classrooms in the Tulsa sample received less math instruction, but more exposure to social studies activities as compared to their peers in public school pre-K classrooms</p> <p>Only the teachers' years of experience was associated <u>with greater exposure to literacy activities</u></p>

Study	Purpose	Participants / Method	Results
Preschool Curriculum Evaluation Research Consortium (2008)	<p>To investigate the impact of the intervention on reading and pre-reading, phonological awareness, early language, early mathematics knowledge, and behavior (including social skills and problem behaviors) at the end of pre-kindergarten and kindergarten</p> <p>To investigate the impact of the intervention curricula on preschool classroom quality, teacher-child interaction, and instructional practices</p>	<p>12 research teams investigated 14 different preschool curricula</p> <p>Research teams implemented their chosen curricula in a school (88% were Head Start or State funded Pre-K programs)</p> <p>Study took place between 2003 and 2005; average age of children at beginning of intervention, 4.6</p> <p>Five major data collection instruments were used to collect the 27 outcome measures and other student, school and family data:</p> <p>(1) a child assessment, (2) a teacher report, (3) classroom observation (ECER-S), (4) a teacher interview or questionnaire, and (5) a parent interview</p>	<p>Statistically significant impacts by curricula were not found</p> <p>Two of the 14 intervention curricula had impacts on the student-level outcomes for the pre- kindergarten year (DLM positively affected reading; and DLM software curricula positively affected math)</p> <p>Findings by curricula are described</p>

Study	Purpose	Participants / Method	Results
Wayne, DiCarlo, Burts, & Benedict (2007)	<p>To examine the frequency with which children freely engage in literacy behaviors during free choice times</p> <p>To examine environmental modification and teacher mediation as a way of increasing literacy behaviors of preschool children</p>	<p>Nine preschool children from low- income families enrolled in three classrooms in an urban preschool program.</p> <p>Researchers assessed the classroom to determine how well the classroom environment in the three classrooms supported early literacy development using the ELLCO (Early Language and Literacy Classroom Observation)</p> <p>An intervention was developed based on the needs identified in the ELLCO: literacy props were added to centers and teachers were shown how to mediate <u>literacy prop use</u></p>	<p>The addition of literacy props when paired with teacher mediation led to an increase in preschool literacy behaviors</p>

APPENDIX D

RESEARCH ON SUPPORTING WRITING IN YOUNG ELLs

Study	Purpose	Participants / Method	Results
<p>Buyse, Castro, Peisner-Feinberg (2010)</p>	<p>To evaluate the effects of the Nuestros Niños professional development program on classroom practices and child outcomes related to English and Spanish language development and early literacy skills</p> <p>Instructional practices to promote language and literacy skills include: phonological awareness, concepts of print, oral language, letter identification, and the <u>alphabetic principle</u></p>	<p>55 teachers (all English only speakers); 193 Latino Dual Language Learners from North Carolina More at Four Pre- K Program</p> <p>Classrooms had bilingual assistants in 35% of the intervention classrooms, 21% of the control classrooms</p> <p>Method: A randomized, controlled study</p> <p>Subscales on the ELLCO Addendum include: the classroom observation scale (eight items rated on a 1–5 scale), the literacy environment checklist (10 items scored as yes or no, or the number of occurrences), and the literacy activities rating scale (seven items scored as yes or no, or the number of occurrences).</p>	<p>Measurable improvements in the overall quality of teachers’ language and literacy practices and specific practices related to working with Latino DLLs</p> <p>Findings reported greater gains in children’s phonological awareness skills in their first language</p>

Study	Purpose	Participants / Method	Results
Castro, Garcia, & Markos (2013)	To provide an analysis of research work by the National Center for Early Care and Early Education Research-Dual Language Learners (CECER-DLL)	<p>Dual language learners between 0-5 years of age</p> <p>Methods:</p> <p>Present a foundational understanding of DLLs, along with a conceptual framework, based in Vygotsky's (1978) social, historical, and cultural theory</p> <p>Discuss policy implications that often separate programs for prekindergarten and other grade levels</p> <p>Present findings from research on the language and literacy development of DLLs</p> <p>Summarize evidence to improve school readiness for DLLs and decrease differences between groups at kindergarten entry</p> <p><u>Inform future research</u></p>	<p>Six conclusions are drawn.</p> <p>Two of the six are related to children's participation in quality activities (which should guide design and implementation of learning opportunities/environments for young children) and quality environments, which should be understood in terms of multiple components, which the authors refer to as structural, affective and instructional elements that promote development and learning in a particular socio-cultural context</p>

Study	Purpose	Participants / Method	Results
Farver, Lonigan, & Epepe (2009)	To determine the effectiveness of a targeted early literacy intervention on Spanish-speaking preschoolers' preliteracy skills	<p>94 Spanish-speaking preschoolers ($MA = 54.51$ months) were randomly assigned the High/Scope Curriculum ($n = 32$ control group), the Literacy Express Preschool Curriculum with the first group receiving the curriculum in English only ($n = 31$) and the second group receiving instruction in Spanish and transitioning to English ($n = 31$).</p> <p>Groups were compared using pre- and posttests of book vocabulary, story comprehension, print concepts, letter naming, writing, rhyming, and English oral proficiency.</p>	<p>Children in the English-only and Spanish-transitioning-to-English group made significant gains in their emergent literacy skills in both Spanish and English compared to the control group</p> <p>The transitional model was the only one effective for Spanish-language outcomes. However, the English-only and transitional models were equally effective for English language outcomes</p> <p>Children's' English oral proficiency was more strongly correlated with the linguistic comprehension domain of early literacy than with the decoding-related domain</p> <p>Although, these findings suggest that small-group instruction in English enhanced some components of the linguistic comprehension and decoding related domains of early literacy for ELL preschoolers, limitations were reported in the small sample size, language of five of the children (English), a high overall differential attrition rate, and lack of attention to bilingual issues in training young children</p>

Study	Purpose	Participants / Method	Results
Hammer, Davison, Lawrence, & Miccio (2009)	To investigate the impact of maternal language and children's gender on bilingual children's vocabulary and emergent literacy development	Seventy-two mothers and their children who attended English immersion programs for two years in Head Start and kindergarten Mothers completed questionnaires annually over a 3-year period	Mothers increased their usage of English to their children, with more mothers of sons than mothers of daughters using English; however, these gender differences did not impact growth in English or in Spanish Increased usage of English did not impact children's English vocabulary or emergent literacy development, but increased usage of English did impact growth of children's Spanish vocabulary (by slowing it down) Researchers suggest that maternal usage of Spanish has no negative effect on developing English vocabulary or emergent literacy abilities, but rather maternal usage of Spanish appears necessary to make the most of children's <u>developing Spanish vocabulary</u>
Matera, C. (2011)	To determine the effectiveness of a writing intervention for Spanish-speaking preschool children to develop their writing <u>abilities in English</u>	Data Source: data from a randomized, longitudinal study of preschool children in Head Start program	Children who received the writing intervention performed statistically significantly better than children in the control group in measures of English and Spanish writing after 2 months of kindergarten instruction. Speaking children's emergent writing skills

Study	Purpose	Participants / Method	Results
Martinez, Lester, & Conte (2010)	To investigate the use and effectiveness of Message Boards with ELLs	Multiple-case qualitative study Researchers photographed the Message Boards every day (as written by the 15 ELLs in the class; placed the pictures in a log, recorded oral messages, dates, and names of children Four assessments were used to document progress: Robb's (2003) Oral Conversation Checklist; Florida Department of Education (2008) PK Standards; the 6 + 1 Trait Scoring Guide; Beginning Writer's Continuum, and <u>Gen tr y's (1 9 8 2) Develo p men tal Spelling S</u>	Children used more details in their picto-writings or drawings as the year progressed
Paez, Tabors, & Lopez (2007)	To investigate the early literacy skills in Spanish and English of young bilingual children and how they change during the prekindergarten year	Bilingual children ($n = 319$) in Massachusetts and Maryland and a comparison group of monolingual Spanish-speaking children in Puerto Rico ($n = 144$) Children were given a pre-test/post-test on four subsets of the Woodcock Language Proficiency Battery and a phonological awareness task	Findings reported that the group from Puerto Rico scored higher on the oral language assessment at the end of prekindergarten than the dual language group The dual language group scored higher on the early literacy subtests, except for phonological awareness Findings revealed that DLLs were stronger in English than <u>in Spanish at age 4</u>
Peisner-Feinberg & Schaff (2011)	To study the benefits of high quality early childhood programs on the readiness skills of Latino DLLs at entry to kindergarten To evaluate the prekindergarten initiative, More at Four, <u>in North Carolina</u>	This study used quasi-experimental methods, comparing two groups of children, based on eligibility for kindergarten, an untreated group (entering More at Four) and a treated group (completing More at Four). The former ($n = 501$) were not eligible for kindergarten; the latter ($n = 509$) had completed More at Four and were entering kindergarten	Children from Latino homes showed improvements after participating in the More at Four Program

Study	Purpose	Participants / Method	Results
Yaden, Tam, Madrigal, Brassell, Massa, Altamirano, & Armendaiz (2000)	To examine the effects of a longitudinal, quasi-experimental preschool literacy intervention of reading and writing activities in the community, home, and center	<p>Inner-city, Latino community, child-care setting from Los Angeles, CA with the program implemented with 55 4-year-olds, 52 3-year-olds, and 14 toddlers</p> <p>Researchers established a morning language and literacy program (2-3 hours); with a big book shared reading program, writing centers, and the addition of 1000 children's books</p> <p>Provided inservice with in-classroom support to child-care teachers and paraprofessionals</p> <p>Instituted a book-lending library, along with parental workshops</p> <p>The study also employed interviews, questionnaires for teachers and parents, as well as home visits with parents</p> <p>Growth in literacy was documented by field notes of classroom observations, pre-and post-testing using a Spanish concepts about print (CAP) test, versions of Piagetian clinical interviews to document growth in written language concepts, and archival records/test scores from elementary school experiences</p>	<p>After three years in the project, preschool children are entering kindergarten at or above grade level in concepts about print; this study reports findings of the first two years of the project, focusing on the second cohort of children who went through the project</p> <p>79% participate in the family book-loan program, with parents highlighting the change in their children's behavior toward books</p> <p>Preschool children (4s) showed gain of 4.5 points on the Spanish CAP test</p> <p>Children outperformed other preschools in knowledge of upper and lower case letters, vowel and consonant recognition</p> <p>Teachers are establishing routines for shared book reading</p> <p>Children are writing in numerous ways and are displaying their working</p>

Study	Purpose	Participants / Method	Results
Yaden & Tardibuono (2004)	<p>To investigate a Piagetian-inspired, clinical analysis where children were engaged in a variety of writing tasks and were then asked to interpret the meanings of their writings</p> <p>To determine how Latino preschoolers interpret their own writing, if these interpretations follow a pattern of development, and if developmentally appropriate instruction assists them in moving toward conventional understanding of the writing process</p> <p>This study also looks at classroom environments and instructional strategies that can best support reading and writing in ELLs</p>	<p>56, urban, Spanish-speaking preschoolers (4-year-olds) from a metropolitan area of the United States</p> <p>Children were assessed individually by writing a series of words using a different color marker for each word (to distinguish one word from the other)</p> <p>Writing was assigned a level based on the work Ferreiro and Teberosky</p> <p>Children were provided with ongoing opportunities to use a writing center, engage in dramatic play, using writing to support their play, as well as opportunities to receive ongoing support from their teachers</p>	<p>Children acquired a higher level in name writing than in the ability to write other words</p> <p>Writing develops unevenly, and requires time, mental energy, and coordination before it is fully developed</p> <p>A rich environment provides the foundation for ELLs to practice writing, but many other variables come into play, such as family background and language interaction patterns, etc.</p>

APPENDIX E

SURVEY OF WRITING IN PREKINDERGARTEN

Instructions for Completing the Questionnaire: This survey was developed to investigate the types of writing experiences that may take place in a prekindergarten classroom and how often prekindergarten students participate in these activities. The survey consists of five parts, Part I, Part II, Part III, Part IV, and Part V. Please complete all five parts.

Part I: The first part simply collects information about you. Please circle the number in each category that describes you.

Part II: The second part of this questionnaire collects information about the students you teach. Please circle the number in each question that describes your students (Adapted from Cutler & Graham, 2008).

Part III: The third section asks you to rate your feelings and attitudes about writing (Adapted from Cutler & Graham, 2008).

Part IV: For each question, read the stem: Do the students in your prekindergarten class...?

Part V: The last section is a summary of classroom practices (Adapted from Cutler & Graham, 2008).

Because this questionnaire is designed to collect information about what is happening in prekindergarten classrooms, please feel free to write in other related examples that occur in your own classroom.

Thank you for your participation in this questionnaire.

Part 1: Information about You

A. Age Range (circle one range)

18-25 26-34 35-39 40-49 50-59 60 +

B. Years of Experience in Education (circle one range)

0-5 6-10 11-19 20-29 30-39 40+

C. Your Highest Education Level (check one)

- High school only
- Child care license
- Two-year degree
- Four-year / Baccalaureate
- Four-year / Baccalaureate plus alternative certification
- Master's degree
- Coursework beyond Master's degree

D. Where You Teach (check one)

- Public school
- Child care center / Day care
- Head Start program
- Home-based program
- Private preschool
- Charter school

E. Gender (circle one)

Female Male

F. Ethnicity (check one)

- Asian
- African American / Black
- Caucasian
- Hispanic
- Native American
- Other

G. Quality of Teacher Preparation for Writing (circle one)

High Quality

Average Quality

Low Quality

Part II: Information About Your Students

1. What grade did you teach during the 2011-2012 school year?

- 2012-2013 school year?

2. How many children were in your classroom during the 2011-2012 school year?

3. How many children are in your classroom during the 2012-13 school year?

4. How many of your current students receive a free or reduced lunch?
_____ I don't know _____
5. How many of the children in your classroom are:
Hispanic _____
White _____
Black _____
Asian _____
Other _____
6. How many of the children in your classroom receive special education services?

7. How many of the children in your classroom are English Language Learners?

8. What is your assessment of the progress of your English Language Learners in the area of writing? (check one)
 ELL students are more advanced than their monolingual peers
 ELL students are making progress that is as good as their monolingual peers
 ELL students are making a smaller amount of progress than their monolingual peers

9. What is your assessment of the overall writing achievement level of all students in your classroom? (Write the number of students who fit within each stage of writing/spelling. Write 0 if you have no students within a particular stage of writing/spelling. The combination of your answers should total the number of students in your classroom.)

_____ Students are **Stage 5** writers/spellers (children write with some conventional spelling and some phonetic invented spelling (sound/symbol matching) to write a message at midyear).

_____ Students are **Stage 4** writers/spellers (children are using some phonetic and some semiphonetic invented spelling (beginning sound matching or letter name matching) to write a message at midyear).

_____ Students are **Stage 3** writers/spellers (children are using some semiphonetic spelling and some nonphonetic letter strings (no sound/symbol matching) with spaces between groups of letters to write a message at midyear).

_____ Students are **Stage 2** writers/spellers (children are using mock letters or letter-like forms and nonphonetic letter strings without spaces between groups of letters to write a message at midyear).

_____ Students are **Stage 1** writers/spellers (children are using mostly drawing and scribbling to convey a message at midyear).

Part III: Information about Your Attitudes and Feelings about Teaching Writing

Use the following codes to respond to the following statements:

- SD** Strongly Disagree
- MD** Moderately Disagree
- DS** Disagree Slightly
- AS** Agree Slightly
- MA** Moderately Agree
- SA** Strongly Agree

1. I like to teach writing.
SD MD DS AS MA SA
2. I effectively manage my classroom during writing instruction.
SD MD DS AS MA SA
3. I like to write.
SD MD DS AS MA SA
4. I am effective at teaching writing.
SD MD DS AS MA SA
5. I feel that my classroom writing program reflects what I believe to be best practice for young children.
SD MD DS AS MA SA

Answer the following question by checking “Yes” or “No.”

6. I have received professional development to learn how to teach writing effectively in prekindergarten.
Yes _____ No _____

Part IV: Survey on Writing in Prekindergarten

Use the following codes to respond to the following statements:

Almost always: Children participate in this activity daily or many times a day.

Often: Children participate in this activity weekly or many times a week.

Sometimes: Children participate in this activity monthly or every other month.

Rarely: Children participate in this activity a few times a year.

Almost never: Children participate in this activity once a year, if at all.

Please note that writing refers to any form of writing, including drawing as writing, scribbles, letter-like forms, strings of letters, invented spelling, or conventional spelling, unless otherwise noted.

1. The students in your prekindergarten class use writing during child-guided dramatic play activities. (Examples may include using writing to: take a message, make a grocery list, complete an order form, and etc.)
Almost always Often Sometimes Rarely Almost never
 - a. The students construct functional items to go along with the play scenario, such as menus, receipts, signs, appointment cards, checks, credit cards, and etc.
Almost always Often Sometimes Rarely Almost never
 - b. Labels one of the structures in the construction center as a community building (such as a school, a grocery store, or a police station).
Almost always Often Sometimes Rarely Almost never
2. The students in your prekindergarten class use or have used this year linear scribbles or letter-like shapes and verbally identify them as writing (by saying, “See what I wrote.” Or “What does it say?”).
Almost always Often Sometimes Rarely Almost never
 - a. Students practice forming letters in sensory materials (such as, sand or cornmeal).
Almost always Often Sometimes Rarely Almost never
 - b. Students demonstrate an understanding of directionality by scribbling a list starting at the top of the page, or starting on the left side of the paper and progressing to the right.
Almost always Often Sometimes Rarely Almost never

3. The students in your prekindergarten class use writing to communicate with others in a variety of ways, such as, sending a message to a friend or to the teacher in the form of a note, a card, or a drawing.
- Almost always Often Sometimes Rarely Almost never**
- a. Participate in creating a letter and signing his or her name on the letter to a person who visited the classroom (such as a fireman or policeman).
- Almost always Often Sometimes Rarely Almost never**
- b. Uses a combination of talking, drawing, and writing to leave a message for the teacher on the “message board.”
- Almost always Often Sometimes Rarely Almost never**
- c. Responds to a survey of the class for the Question of the Day, such as “Do you have a pet?” by writing his/her name or placing his/her name card under a yes or no column.
- Almost always Often Sometimes Rarely Almost never**
- d. Makes a birthday wish list (or Christmas list) using pictures from catalogues, mock letters, or drawings.
- Almost always Often Sometimes Rarely Almost never**
4. The students in your prekindergarten class shows an understanding of drawing/writing as a method of communication by expressing ideas and drawing a picture/series of pictures to tell a story.
- Almost always Often Sometimes Rarely Almost never**
- a. Writes a few letters or mock letters as a caption under a drawing or labels a picture with shapes which are letter-like in form.
- Almost always Often Sometimes Rarely Almost never**
- b. Draws thinking/speech bubbles to show that characters in the story are thinking or talking.
- Almost always Often Sometimes Rarely Almost never**
- c. Draws and writes about favorite part of school field trip, such as, visiting the zoo, the post office, or a farm.
- Almost always Often Sometimes Rarely Almost never**
- d. Writes a simple sentence to show an exciting or interesting part of the story.
- Almost always Often Sometimes Rarely Almost never**

- e. Dictates a story and, when finished, says, “The end.”
Almost always Often Sometimes Rarely Almost never
5. The students in your prekindergarten class write (with some success) the letters in his or her first name, though they may not be well- formed and may omit letters.
Almost always Often Sometimes Rarely Almost never
- a. Signs his/her name on sign- in sheets, art work, graphs, letters, lists, etc.
Almost always Often Sometimes Rarely Almost never
- b. Writes his/her first name from memory on center waiting lists and art work.
Almost always Often Sometimes Rarely Almost never
6. The students in your prekindergarten class participate in copying letters or shapes (O, +, X) using a variety of writing tools, such as markers, crayons, and pencils.
Almost always Often Sometimes Rarely Almost never
- a. Copies letters from food labels or word cards of friend’s names.
Almost always Often Sometimes Rarely Almost never
- b. Engages in “write the room,” copying letters from posters, charts, letter walls, books, etc. found around the room.
Almost always Often Sometimes Rarely Almost never
- c. Spells a friend’s name with letter cubes and then copies it on paper.
Almost always Often Sometimes Rarely Almost never
7. The students in your prekindergarten class use a combination of drawing, dictating, and writing to create pages for a class book that indicate preferences, such as a favorite food restaurant, food, toy, friend, holiday, center, season, month, color, shape, etc. (Delyla’s favorite food is...).
Almost always Often Sometimes Rarely Almost never
- a. Creates a page in a book that indicates the first letter of his or her name and an item that begins with that letter while contributing to an ABC book (such as, D is for Delyla. Delyla likes dolls; or D is for Delyla. Delyla wants to be a doctor.).
Almost always Often Sometimes Rarely Almost never
- b. Creates a page about a family member or pet and states why he or she loves this person or what he or she does to care for this animal.
Almost always Often Sometimes Rarely Almost never

- c. Creates a page for a book about an informational text shared in the class.
Almost always Often Sometimes Rarely Almost never
8. The students in your prekindergarten class explore digital tools to produce drawings or writing, such as using a finger to draw a picture on an iPad or touch screen.
Almost always Often Sometimes Rarely Almost never
- a. Produces a page from a program where the child selects the scene and then stamps characters on the page; then tells a story about his or her creation.
Almost always Often Sometimes Rarely Almost never
- b. Types his or her name (and other letters, numbers, or words) using a computer keyboard.
Almost always Often Sometimes Rarely Almost never
9. The students in your prekindergarten class participate in “Author’s Chair” by sharing a drawing or writing with the class, summarizing (one sentence or more) what he or she has drawn or written.
Almost always Often Sometimes Rarely Almost never
- a. Expresses a desire to share written work with the class.
Almost always Often Sometimes Rarely Almost never
- b. Responds to questions about written work when asked by peers.
Almost always Often Sometimes Rarely Almost never
10. The students in your prekindergarten class participate in using writing boxes/prop boxes during center or work station time, writing a mini-book on the topic of the writing box and using the books on that topic and props in the box as prompts.
Almost always Often Sometimes Rarely Almost never
- a. Initiates the use of a writing box on a favorite topic, such as superheroes or sports.
Almost always Often Sometimes Rarely Almost never
- b. Shares with the teacher or a peer what he/she has written.
Almost always Often Sometimes Rarely Almost never
- c. Revisits the writing box to create a new mini-book or to investigate the props in a new way.
Almost always Often Sometimes Rarely Almost never

11. The students in your prekindergarten class participate in shared and interactive writing.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- a. Participates in a Morning Message, where students share the date and the plans for the day.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- b. Participates in a Daily News, where children share recent home or school experiences.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- c. Participates in shared writing of a letter to a character in a story and makes a suggestion based on what has happened in the story.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- d. Generates a list of content-related vocabulary around a particular theme during a teacher guided activity.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- e. Generates a list of learning center materials around a particular topic.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- f. Creates a graphic organizer, such as a story map to show the sequence of a story or a Venn diagram to compare two versions of the same fairy tale.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
12. The students in your prekindergarten class participate in writing activities in the home that are an extension of classroom activities.
- a. Takes home class-made books from the classroom library to share with family members; family members write a response in the back of the book.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- b. Takes home books from the class or school library in the child’s native language; child draws favorite character or dictates a favorite part of the story to family members.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|
- c. Takes home a packet of writing tools and paper to write about a favorite family activity.
- | | | | | |
|----------------------|--------------|------------------|---------------|---------------------|
| Almost always | Often | Sometimes | Rarely | Almost never |
|----------------------|--------------|------------------|---------------|---------------------|

d. Takes home a birthday journal on his/her birthday to write about birthday events.

Almost always Often Sometimes Rarely Almost never

13. The students in your prekindergarten class participate in mini-lessons provided by the teacher for one to five minutes during center/work station time to increase engagement in a literacy event.

Almost always Often Sometimes Rarely Almost never

a. Engages in conversation with the teacher about a favorite book during a mini-lesson.

Almost always Often Sometimes Rarely Almost never

b. Participates in a writing activity with the teacher during a mini-lesson.

Almost always Often Sometimes Rarely Almost never

c. Imitates the roles modeled by the teacher during a in dramatic play literacy event.

Almost always Often Sometimes Rarely Almost never

d. Engages in a conference with the teacher about ways to improve writing.

Almost always Often Sometimes Rarely Almost never

Part V. Summary of Writing Practices

1. During an average week, how many minutes do your children spend writing on their own? (This does not include whole group or small group instruction, but it may include your participation with them in a mini-lesson on writing)

2. During an average week, how many minutes do you spend **teaching** each of the following?

Modeled Writing (The Teacher Writes) _____

Shared Writing (The Teacher Writes; Students Help) _____

Interactive Writing (The Teacher Shares the Pen) _____

3. How much of your instructional time in writing involves **whole group instruction**? (Please give a figure from 0% to 100%.)

_____ %

4. How much of your instructional time in writing involves **small group instruction or “cooperative” learning activities?** (Please give a figure from 0% to 100%.)
 _____%

5. How much of your instructional time in writing involves **individualized instruction?** (Please give a figure from 0% to 100%.)
 _____%

6. Do you use a commercial program to teach writing, handwriting, spelling, or any other aspect of composing?
 Yes _____ No _____
 What programs do you use?

7. Please check which of the following writing activities your students will do in your prekindergarten classroom during school year.

- Stories
- Personal narratives
- Journal writing
- Poems
- Lists
- Book reports
- Making books
- Comic strips
- Plays
- Making alphabet books
- Completing worksheets
- Copying text
- Drawing a picture and writing something to go with it
- Writing letters to another person
- Writing in response to reading
- Other types of writing, such as _____

8. Circle how often **students share their writing** with their **peers**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

9. Circle how often your **students help their classmates** with their writing.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

10. Circle how often students are allowed to **complete writing assignments at their own pace**.

Never			Half the time				Always

11. Circle how often you encourage students to use “**invented spellings**” at any point during the writing process.

Never			Half the time				Always

12. Circle how often **you read your own writing** to your students.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

13. Circle how often you teach **sentence construction skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

14. Circle how often you teach students about **ways of organizing text or how texts are organized**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

15. Circle how often you teach students **strategies for planning**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

16. Circle how often you teach students **strategies for revising**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

17. Circle how often you teach students **handwriting skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

18. Circle how often you teach **spelling skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

19. Circle how often you teach **grammar skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

20. Circle how often you teach **punctuation skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

21. Circle how often you teach **capitalization skills**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

22. Circle how often you **provide mini-lessons** on writing skills or processes students need to know at this moment---skills, vocabulary, concepts, strategies, or other things.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

23. Circle how often you **overtly model writing strategies**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

24. Circle how often you **model the enjoyment or love of writing** for students.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

25. Circle how often you **reteach** writing skills or strategies that you previously taught.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

26. Circle how often you assign **writing homework** to students in your class.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

27. Circle how often your students work at **writing centers**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

28. Circle how often your writing lessons have **multiple instructional goals**.

Never			Half the time				Always

29. Circle how often you use a **writing prompt** (e.g., story starter, picture, physical object, etc.) to encourage student writing.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

30. Circle how often your students use a **graphic organizer** (e.g., story map) when writing.

Never			Half the time				Always

31. Circle how often **you monitor the writing progress** of your students in order to make decisions about writing instruction.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

32. Circle how often you encourage **students to monitor their own writing progress**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

33. Circle how often students use **rubrics** to evaluate their writing.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

34. Circle how often students in your classroom use **writing portfolios** (add material to a portfolio, look at material already in it, and so forth).

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

35. Circle how often you ask students to **write at home with parental help**.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

36. Circle how often you ask **parents to listen** to something their child wrote at school.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

37. Circle how often you **communicate with parents** about their child's writing progress.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

38. Circle how often you allow one or more students in your classroom to write by **dictating** their compositions to someone else.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

39. Circle how often you allow one or more students in your classroom to use **computers** during the writing period to play a game that involves drawing or writing.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

40. Circle how often students use **writing to support reading** (e.g., write or draw about something they read).

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

41. Circle how often students use **reading to support writing** (e.g., read or pretend to read books to inform their writing).

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

42. Circle how often your students use **writing in other content areas** such as social studies, science, and math.

Never	Several times a year	Monthly	Several times a month	Weekly	Several times a week	Daily	Several times a day

43. If you have any additional information about your writing program that you would like to share with us, please do so here.

APPENDIX F

PK STUDENT BEHAVIOR OBSERVATION SCHEDULE

School _____ **Observer** _____ **Date** _____
Teacher _____ **Time Began** _____ **Time Ended** _____
Student Sex _____ **Content Area** _____ **Student Ethnicity** _____ **Grade Level** _____

Instructions: mark each element observed in 30-second time intervals. Total each row in the far-right column.	1	2	3	4	5	Total
SETTING (check one)						
1. Whole class						
2. Small group (more than 2 students)						
3. Dyad (2 students)						
4. Individual						
5. Other _____						
MANNER (check one)						
1. On-task						
2. Off-task						
3. Waiting for teacher						
4. Disruptive						
5. Other _____						
INTERACTION (check one)						
1. No interaction						
2. With teacher – instructional						
3. With teacher – managerial/social						
4. With other students						
5. Other _____						
ACTIVITY TYPES (check all that are observed)						
1. Written assignment						
2. Assessment						
3. Discussing						
4. Reading						
5. Tutoring						
6. Working kinesthetically						
7. Answering teacher-posed questions						
8. Answering peer-posed questions						
9. Questioning						
10. Presenting						
11. Learning/activity centers						
12. Constructive play (blocks, Legos)						
13. Dramatic play (inventive, symbolic)						
14. Games/rule-based play (e.g., board games, puzzles, child-created)						
15. Free exploration/inquiry						
16. Using concrete learning materials that closely relate to daily life						
17. Listening/watching						
18. Distracted						
19. Acting-out (behavior)						
20. No activity/transition						
21. Other _____						

	1	2	3	4	5	Total
NATURE OF LEARNER INTERACTION (with other students)						
1. Onlooker						
2. Parallel (next to, but not with another student)						
3. Associative (together, but without a common focus)						
4. Cooperative (together, organized, with a shared purpose)						
TECHNOLOGY (check all that are observed)						
1. MP3 player/iPod						
2. Tape player/radio						
3. Interactive whiteboard/SMART Board						
4. Flip camera/video camera						
5. Digital camera						
6. DVDs/CDs & headphones						
7. Skype/video communication						
8. Laptop computer						
9. Desktop computer						
10. Television						
11. Document reader						
12. Overhead projector (traditional)						
13. Handheld game/device						
14. Student timers						
15. Other _____						
EDUCATIONAL USE OF WRITING (check all that apply)						
1. Tracing or Copying Words						
2. Making a Book (Adult-Directed)						
3. Making a Book (Child-Directed)						
4. Playing with Writing (Sensory Materials)						
5. Teacher Guided: Modeled, Shared, or Interactive Writing						
6. Other _____						
LANGUAGE USED (check all that apply)						
1. English						
2. Spanish						
3. Other _____						

APPENDIX G

PK TEACHER ROLES OBSERVATION SCHEDULE

School _____ **Observer** _____ **Date** _____
Teacher _____ **Time Began** _____ **Time Ended** _____
Teacher Sex _____ **Content Area** _____ **# of students in class** _____ **Grade Level** _____

Instructions: mark each element observed in 30-second time intervals. Total each row in the far-right column.	1	2	3	4	5	Total
INTERACTIONS (check one)						
1. No interaction						
2. With student(s) (instructional)						
3. With student(s) (managerial)						
4. With student(s) (social, personal)						
5. With student(s) (collaborative)						
6. Other						
SETTING (check one)						
1. Whole class						
2. Small group (more than 2 student)						
3. Dyads (2 students)						
4. Individual						
5. Traveling						
6. Other						
INSTRUCTIONAL ORIENTATION (check one)						
1. Direct instruction (e.g., lecture)						
2. Seatwork (e.g., worksheets, textbooks)						
3. Learner-centered (e.g., cooperative learning, project-based, inquiry)						
4. Other						
NATURE OF INTERACTION (check all that are observed)						
1. Questioning						
2. Explaining						
3. Positive Commenting (e.g., 'you look nice today')						
4. Negative Commenting (e.g., 'traffic was terrible this morning')						
5. Neutral Commenting (e.g., general discussion about sports)						
6. Listening						
7. Cueing or prompting (scaffolding)						
8. Modeling/Demonstrating						
9. Other						

	1	2	3	4	5	Total
PURPOSE OF INTERACTION (check all that are observed)						
1. Focus on content (e.g., subject area content)						
2. Focus on process						
3. Focus on product (e.g., outcome)						
4. Connect content to other disciplines						
5. Connect content to global communities						
6. Present multiple perspectives on topic						
7. Redirect student thinking						
8. Show interest in student work						
9. Show personal regard for student						
10. Encourage students to help each other						
11. Encourage students to succeed						
12. Encourage students to question						
13. Encourage extended student responses						
14. Encourage student self-management						
15. Praise student behavior						
16. Praise student performance						
17. Correct student behavior						
18. Correct student performance						
19. Assessment						
20. Other						
INSTRUCTIONAL PRACTICES (check all that are observed)						
1. Allocates extended periods of time for students to engage in play and						
2. Facilitates opportunities for students to play with and learn from each						
3. Interacts with students during their play, while avoiding interference						
4. Talks with students about ideas related to their play						
5. Observes and documents students' play to assess progress						
6. Provides opportunities for students to sing, listen to, and/or move to						
7. Uses technology to present material						
8. Assists students with technology						
9. Uses technology as a communication tool						
10. Uses technology to create						
11. Uses technology to access the Internet						
LANGUAGE USED (check all that apply)						
1. English						
2. Spanish						
3. Other						

APPENDIX H

PK OVERALL CLASSROOM OBSERVATION MEASURE

School _____ Observer _____ Date _____
 Teacher _____ Time Began _____ Time Ended _____
 Content Area _____ Grade Level _____

At the end of the classroom observation, mark the column corresponding to the rating scale below as was observed for each element listed.

Rating Scale

- 1 Not observed at all
- 2 Some extent (once or twice)
- 3 Great extent (3 or more times)

	1	2	3
INSTRUCTION			
1. Teacher actively facilitated students' engagement in activities and lessons to			
2. Teacher linked concepts and activities to one another and to previous learning			
3. Teacher applied new concepts to similar situations (elaborated)			
4. Teacher connected ideas and concepts			
5. Teacher initiated experiences, discussions and activities			
6. Teacher acted as coach/facilitator			
7. Teacher allowed students to develop concepts or procedures			
8. Teacher provided students opportunities for problem solving			
9. Teacher asked many open-ended questions			
10. Teacher provided feedback (answers, information, etc.)			
11. Teacher provided ample wait-time for student responses			
12. Teacher assisted students to organize thinking (identify and describe patterns)			
13. Teacher integrated technology into lesson			
14. Teacher integrated feedback and assessment into instructional cycle			
15. Teacher distributed feedback evenly			
16. Teacher redirected student thinking			
17. Teacher related concepts to students' lives			
18. Teacher provided opportunities for students to assume responsibility by initiating			
19. Teacher used a variety of modalities including auditory, visual, and movement			
20. Teacher varied styles of conversation and participation to include students' cultural			
21. Teacher provided opportunities for students to be creative and/or generate their own			
22. Teacher offered encouragement of students' efforts that increased students'			
23. Teacher appeared to have warm, supportive relationships with students			
24. Teacher used appropriate vocabulary based on students' language proficiency			
25. Teacher emphasized key and new vocabulary			
26. Teacher explained tasks using a step-by-step manner with visuals			
27. Teacher provided opportunities for clarification in native language, if possible			
28. Teacher integrated all language skills: listening, speaking, reading, and writing			

	1	2	3
STUDENT			
1. Students initiated and assumed responsibility for learning activities			
2. Students connected ideas and concepts			
3. Students used different ways to answer (alternative solutions)			
4. Students used technology to enhance problem solving/creativity			
5. Students used technology to learn basic skills (e.g., tutorials, drill & practice)			
6. Students used technology to access the Internet			
7. Students were engaged in classroom activities			
8. Student activities were learner-centered			
9. Students solved problems using real objects in the classroom environment			
10. Students engaged in activities that integrated multiple subjects and content areas (reading, math, science,			
11. Students had freedom of movement and placement during activities			
CLASSROOM ARRANGEMENT/ENVIRONMENT			
1. Materials and/or manipulatives were available for hands-on student practice			
2. Space was divided into activity areas/centers and organized in a manner to encourage children's learning			
3. Blocks and/or other construction materials were available for exploration/play			
4. Student work was displayed			
5. Transitions were quick and efficient			
6. Technology was accessible for student use			
WRITING			
1. Tools for writing were available (markers, pens, pencils, and other writing implements)			
2. Materials for bookmaking (pre-stapled books, theme-related shaped paper; paper for book covers) were available			
3. Charts used during modeled, shared, or interactive writing were present (e.g., graphic			
4. Student folders/journals were available			
5. Children were provided with the opportunity to respond to a question of the day			
6. Children were able to participate in a Morning Message or Daily News			
7. Writing baskets (containing paper, writing tools, clipboards; theme-related books/props			
8. Children were able to retell a familiar story fingerplay, or nursery rhyme using props			
9. Class books (where each child contributed a page) were available in the classroom			
10. Artwork, including drawings or paintings, in response to literature were visible			
11. Technology was used to teach writing or for children to practice writing			
12. Children were using writing during dramatic play (e.g., doctor using a clipboard;			
13. A writing center or work station was available			
14. Writing materials were available in other centers/work stations			
15. Other _____			

Additional field notes:
