Fostering Children's Literacy and Language Development through Play:
A Look at the Role of Early Childhood Educators in Preschool and Kindergarten Classrooms

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by

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CHAPTER ONE

INTRODUCTION

Project Overview

Years of research reveal that there are many benefits for children who develop early

literacy skills, or the foundational skills children must know about reading and writing before

they can actually learn to read and write. Because of the known positive outcomes associated

with early literacy development, the argument is made for the importance of intentionally

integrating language-learning experiences into young children's classroom environments. One

practice, play-based learning, encourages contributions from both adults and children, and allows

learning to occur in a natural context by replacing the "drill and practice of skill acquisition"

seen in most school-age classrooms (Saracho, 2004, p. 201). In the classroom setting, play-based

approaches that have been shown to be effective in encouraging children's language capabilities

engage multiple aspects of early education practice. Classroom arrangement and material

inclusion, and teachers' verbal communication styles with their students, are examples of such

successful techniques. Relevant literature documenting both observational and experimental

studies focused on these two techniques is explored, and the relationship between training and

teachers' implementation of these strategies is discussed.

One training approach, reflective teaching, is a process in which teachers review and

develop their teaching style to be responsive to children's interests and play scenarios. Because

of this structure, reflective teaching has the potential to enhance preschool and kindergarten

children's language and literacy development during their spontaneous play. The objective of the

current study sought to explore the effects of a reflective training session aimed at improving

novice teachers' understandings of language and literacy-focused practice on their spontaneous

interactions with children during play. Eight student teachers (four target, four control) enrolled in the Cal Poly San Luis Obispo Preschool Lab course during Winter Quarter of 2012 participated in this study. Basic design consisted of behavioral observations of the target group pre- and post-training during weeks two through eight, and of the control group within the first two weeks of lab. The treatment group was filmed for baseline data collection and outcome data collection, and also participated in the training session; the control group was involved only in baseline data collection.

After coding and analyzing the data, it was found that students in the treatment group showed no significant differences in their use of talk types pre- and post-treatment, and also did not demonstrate any significant differences in comparison to the control group. The treatment of reflective teaching appeared to have little effect on student teachers' literacy behaviors. While these findings are discouraging in terms of the potential for reflective training intervention as an influence on teacher's talk, there are many factors of the treatment design that could account for the lack of confirming evidence. Limited exposure to reflective teaching, ineffective training content, no exploration into change on an individual basis, inattention to children's involvement, and a restrictive filming schedule and coding system are all considered in terms of their relationship to current findings and potential influence on future research. Suggestions for future research are offered.

Significance to the Field of Child Development and Self

As a potential future educator and soon-to-be graduate of the child development department, I feel that it is my responsibility to be familiar with the existing literature on children's development and the role of the teacher in aiding this growth, in order to provide children with sensory-rich, responsive environments and stimulating interactions that nurture

their learning across all domains. In particular, though, I believe that language holds a key place in aiding young children's developing understandings of the world as it gives them the ability to not only express themselves, but also recognize and appreciate the thoughts of others.

From my time and experiences at Cal Poly, I have also adopted the philosophy that children should be given the opportunity to direct their play, and to feel secure in investigating their surroundings, because when they are given these chances, they develop an intrinsic motivation to learn that fosters their learning for years to come. Teachers should recognize and support children's eager, optimistic, and genuine interest in learning by encouraging play as a medium for this exploration, and creating curriculum that is developmentally appropriate and exercises children's creativity.

For this reason, I chose to explore the relationship between teachers and children in preschool and kindergarten classrooms in regards to children's emergent literacy and early language development during child-directed, free play periods. Above all, just as I hope to instill in my future students, I want to continue learning and growing as a person, and this project was, I believe, the first step toward putting this philosophy into practice as it continually challenged me to become a better researcher and writer. The following review on current research, and my own study, offer teachers a better understanding of how to positively incorporate language and literacy practices into their classrooms and enhance their communication with children. It also presents evidence for the use of reflective teaching as a training tool for teachers.

CHAPTER TWO

LITERATURE REVIEW

Debate about how best to support literacy and language development in school settings traditionally centers on the relative merits of various approaches of teaching reading and writing to school-aged children. Recently, however, a societal push for earlier and earlier academic skill-building has turned attention to the multiple ways of fostering literacy development in preschool and kindergarten children. Years of research reveal that there are many benefits for children who develop early literacy skills, or the foundational skills children must know about reading and writing before they can actually learn to read and write. For example, children who are better able to communicate have an easier time developing peer relationships (McCabe & Meller, 2004; Sherrod, Siewert, & Cavallaro, 1984), and are simultaneously establishing a positive base for future literacy growth (Justice, Mashburn, Pence, & Wiggins, 2008). It is for reasons such as these that the argument is made for the importance of intentionally integrating language-learning experiences into young children's classroom environments.

Although child development experts advocate encouraging children's language and literacy development in preschool and kindergarten classrooms (Bluiett, 2009), they caution parents and teachers to carefully consider the approaches used with young children. For preschool and kindergarten-aged children, a significant portion of learning is simply experimentation, and experiencing a budding curiosity of reading and writing. This concept is captured under the term "emergent literacy", which can be understood as the "naturally acquired" skills, knowledge, and attitudes that serve as the basic building blocks for children's later formal writing and reading instruction (Christie & Enz, 1992; Connor, Morrison, & Slominski, 2006). For instance, phonological awareness, or the recognition that words are

composed of separate speech sounds, is an early language skill critical to determining future writing and reading success (Connor, Morrison, & Slominski, 2006). Such awareness can be fostered in multiple ways, for example by listening to and singing along with songs that contain rhyming (Fisher & Williams as cited in Saracho & Spodek, 2007). Additional elements of emergent literacy include: alphabet knowledge, developing the understanding that printed words convey meaning, and discovering how the conventions of print direct reading (Massetti, 2009). The importance of having early language experiences to support these developing understandings is evident, but the key is presenting these opportunities to young children in a manner appropriate to their developmental capacity.

Lev Vygotsky, a revolutionary theorist who focused primarily on children's cognitive and social development, was a firm believer in the importance of play and human connection as non-conventional mediums for children's learning (Bodrova & Leong, 2009). A foundational element of his work emphasized the role of adult participation in helping to shape children's development in such informal situations. Adults, directly through their own social interactions with children, and indirectly by creating the contexts in which children play and grow, are in a position to make significant contributions to the development of the children in their care. Vygotsky was also careful to note, though, that children are not passive, choosing, to an extent, how they will participate in their own learning, such as in their desire to "experiment" with language (Bodrova & Leong, 2009).

While there are many approaches to promoting literacy in early education settings, Vygotsky's insight, and the literature that has since sprung forth, reveal that it may be particularly useful to focus on learning that occurs in the context of play. Although play can be difficult to define, some consider it to be any spontaneous and voluntary involvement of children

in activities they find enjoyable, and that require active engagement on the part of the child (e.g.

Saracho, 2001; Schrader, 1990). An emphasis on play-based learning offers educators an

effective, age-appropriate alternative to more traditional, direct forms of instruction that rely

heavily upon planned teacher-focused lessons and forgo children's exploration of the material.

Play-based learning instead encourages contributions from both adults and children. It allows

learning to occur in a natural context, and replaces the "drill and practice of skill acquisition"

that we see in most school-age classrooms (Saracho, 2004, p. 201). In the classroom setting,

play-based approaches that have been shown to be effective in encouraging children's language

capabilities engage multiple aspects of early education practice, such as curriculum planning and

teachers' verbal roles.

Although theoretically consistent with Vygotsky, play-based approaches to supporting

language and literacy development also have received empirical support. Investigation of the

varied ways in which teachers can provide children with enriching language experiences and

foster their emergent literacy development through play reveal two primary avenues through

which this can be achieved: (1) classroom arrangement and material inclusion, and (2) teachers'

own verbal communication with their students.

Environmental and Material Support for Language and Literacy Development

The arrangement of a classroom is a teacher's first tool in determining how children will

respond to and interact with the space, materials, and people around them. Environments that are

conducive of learning across all domains are thoughtfully organized to reflect the play patterns,

mobility, and thought-processes of young children. Recent research converges on the idea that

strategically creating environments that encourage children's intrinsic motivation to play, while

offering thoughtful opportunities for literacy-related activities, have been successful in

enhancing language development in the resulting play. For example, providing literacy-related materials in existing play areas, integrating storybook-related themes throughout the room, and building music into the classroom, are strategies that rely on the same underlying principle— creating environments that children want to play in (particularly in ways that will boost their use of language and build their emergent literacy skills) will inherently nurture language growth. There are multiple ways that teachers can tailor their approach to support language and literacy development; empirical support for the effectiveness of several of these approaches is provided below.

Enhancing Curriculum Areas with Literacy-Related Play Materials

Adding literacy materials to existing play spaces is a simple, proven way teachers can create a more language-focused classroom. Christie and Enz (1992) confirmed this in their examination of a group of preschool teachers who attempted to create stimulating activity settings by incorporating literacy-related objects, such as pencils, paper, books, and newspapers, into dramatic play areas. Pre- and post-alterations, the centers were videotaped in-use by children. Increases in children's emergent forms of reading and writing were found in post-alteration filming (Christie & Enz, 1992). Saracho (2001) documents similar effects, reporting benefits of the inclusion of literacy-promoting play materials in both dramatic play areas and also less conventional ones, such as that of manipulatives. Enhanced areas were observed to help children's casual engagement with and exploration of language and literacy by providing a context where children could practice speaking, listening, reading, and writing as they went about their everyday play routines (Saracho, 2001). Similarly, Morrow (1990) found that alterations to free play settings, much like those mentioned above, increased children's voluntary

literacy use during play. Further, Morrow reports that even greater benefits can be obtained by deliberately creating thematic activity settings.

Thematic activity settings—areas designated with specific play intentions, for example a pretend dentist's office—have been shown to contribute to children's literacy development. In a four-way comparison study, Morrow (1990) studied the differential impacts of: (1) integrating literacy-related materials into children's existent dramatic play areas, (2) creating thematic activity settings with guided teacher interaction, (3) offering thematic activity settings without guided teacher interaction, and (4) not making any special effort to promote literacy. For "literacy materials" classrooms, paper, books, and writing materials were placed in the existing dramatic play areas. In "Thematic Activity Setting" classrooms, changes were made to accommodate a pretend veterinary office. Upon visiting the veterinarian office, children entered into a space consisting of: chairs, a table, books, pamphlets, posters, clipboards and pens, address book, patient folders, prescription pads, doctor's kits, et cetera. Teachers in classrooms containing thematic activity settings and the condition of "guided teacher interaction" were instructed to specifically place themselves in the play area, and to offer suggestions for how play could develop given the materials present. In classrooms without guided teacher interaction, children alone determined how the play unfolded. Observations were made pre-intervention, one week post-intervention, and again a month later. Each of the experimental groups, those in which alterations were made to the classroom environment, showed increases in literacy behaviors that were not demonstrated in the control group classroom. In particular, though, the classrooms in which thematic activity settings were introduced yielded the greatest change in literacy behaviors; results maintained even after the month delay.

Another study examining the effects of thematic activity settings affirmed Morrow's (1990) findings, citing increases in children's attempts to read, and more introductions to literacy-related scripts of routines and functional print in the context of a defined play situation (Roskos & Neuman, 1993). Much like dramatic play areas, thematic activity settings allow for children's spontaneous, creative play. However, these areas also subtly offer guidelines to children about how to extend their play, given the context promoted by, and materials included in, the play space. This difference accounts for the increased benefits associated with thematic play settings over those related to material-enriched play areas (Roskos & Neuman, 1993).

Assistance of Storybooks

Another mode of including language and literacy development in play curriculum is through the use of storybooks. Rosenquest (2002) directed parents to read aloud, at home, a book that reflected the daily life routine of most young children. The teacher of these children then connected themes of the story to classroom curriculum, for example by displaying images from the book on the walls of the classroom. Results revealed that children reenacted parts of the story in their spontaneous play, which is shown to have a positive impact on later story comprehension. Children in this study also demonstrated an ability to grasp and recall spoken word at a young age, which is telling of future story decoding and production. Rosenquest (2002) proposes that benefits of literature-based activities are the result of children's need to label, compare, and recall events during these activities, all actions that can lead to vocabulary expansion. Integrated curriculum, such as a connection between storybooks and classroom displays, helps teachers to weave language exposure, and consequently development, into children's play through a relationship between space, materials, and play activities.

Music as a Means of Promoting Language Skills

Language-focused curriculum that focuses on music incorporation is another practice associated with children's positive literacy and language outcomes. For example, by providing music in the classroom during free play time, teachers are presenting children with another opportunity to incorporate language into their play; children benefit from hearing words produced by other people, and then get to experiment producing these same sounds by singing along (Rosenquest, 2002). Fisher and Williams (2002, as cited in Saracho & Spodek, 2007) explored the connection between music and language development, and found that one benefit of exposure to repetitive music is that it assists children in learning the sounds of language and phonemes in words. The importance of this finding is explained by the research of Williams and Rask (2003, as cited in Saracho & Spodek, 2007), who determined that early development of phonological awareness helps children to segment words into separate sounds, and eventually transfer this skill to the sounding and spelling out of printed letters and words. An emphasis on supporting phonological development through music may have long-lasting effects. Children who express greater phonological awareness during their early years become more successful readers and writers later (Connor et al, 2006).

In sum, evidence suggests that thoughtful provision of materials and play opportunities is of clear value in efforts to support children's language and literacy development. Promising as these findings are, Lev Vygotsky's emphasis on social interaction as an informal teaching opportunity calls to attention the need for human connection (Bodrova & Leong, 2009). Through their verbal interactions with students, teachers are actively applying Vygotsky's beliefs of scaffolding children's growth.

The Role of Teachers' Verbal Engagement in Supporting Language and Literacy Development

Verbal interaction between teachers and their young students during play is crucial to emergent literacy and language development. It is through these exchanges that children learn and develop the skills of contextual language and rules of communication. Research on this aspect of play-related language development has covered a broad range of methods for helping teachers find ways to maximize the potential of their verbal interactions to support language and literacy development. The research that informs this topic falls into two categories: (1) observational studies that examine how teachers are already fostering development and (2) investigations of training-based literacy-interventions.

Observing What Teachers Are Doing Naturally

Dickinson and Porche (2011) explored relationships between preschool teachers' language practices and children's language use. Notably, their study included a longitudinal component that involved observation of the same children at three points in their lives: preschool, kindergarten, and fourth grade. Children in this study were primarily Caucasian and from low-income families. The preschool observation consisted of recording free play time within the preschool classrooms, and the Kindergarten and 4th grade observations occurred during children's typical classroom instruction.

Results demonstrated that three key elements of preschool teacher-student verbal interaction relate to future language success. Children in preschool classrooms where teachers had used sophisticated vocabulary during free play showed higher levels of emergent literacy and vocabulary in kindergarten, and reading comprehension, word recognition, and decoding in fourth grade (Dickinson & Porche, 2011). A second pattern of interaction, "extending", in which preschool teachers built on children's play interests by elaborating on the topic at hand, was shown to support children's ability to produce more complex sentence structures in response

(Dickinson & Porche, 2011). Schrader (1990) suggests that extending is successful in furthering literacy development because it focuses on the process of learning, whereas redirecting (changing the direction of play) inhibits children's expression. Finally, Dickinson and Porche (2011) noted that teachers who talked less were actually shown to be more responsive and better at promoting children's thinking, a key point to recognize because it may reveal that it is not quantity of teacher-student verbal interaction but rather quality that plays a more prominent role.

Another interaction style found already occurring between teachers and students during play finds its roots in Vygotskian theory. Vygotsky advocated from the position of learning as a social process, in which children learn from the assistance of "more capable others" through dialogue and modeling (Bluiett, 2009). In the context of the classroom, it can be assumed then that teachers should model both proper language and material use for their students. This notion was confirmed in many studies, all of which emphasized the importance of teachers verbally introducing and modeling the use of literacy materials prior to and during children's own exposure and exploration during play (e.g. Roskos & Neuman, 1993; Saracho, 2001; Saracho, 2002; Rosenquest, 2002). For instance, the significance of this type of verbal interaction is demonstrated by the findings of Morrow (1990); teachers who provided guidance had students who produced more literacy-related behaviors than those students in classrooms where modeling was not utilized. Each of the aforementioned examples represents some of the various ways in which teachers are instinctively helping children to develop early language and emergent literacy skills in the classroom. While shown to be successful techniques, teachers can be helped to even further improve their practice, resulting in greater gains for students.

The Impact of Training

Because of evidence suggesting that certain language practices are more effective than others in fostering language development, some researchers look at what teachers can accomplish when given targeted training. Pence, Justice, and Wiggins (2008) created a comprehensive way of encouraging teacher-student verbal interaction in pre-kindergarten classrooms that served mainly low-income Caucasian children. Their design involved encouraging teachers to create weekly lesson plans based upon thematic activity centers, and helping these same teachers develop language goals for children to accomplish throughout the week. Participating teachers were persuaded to utilize different techniques, depending upon the play context. Open-ended questions, expansions (adult repetition of a child's words with missing information filled in), and recasts (adult repeats a child's utterance using different syntax), were among the possible tools to draw from. Pence et al. (2008) gave an example of a dramatic play setting where the children's language goals were to begin identifying props, roles, and scripts. The lesson plan called for the teacher to ask open-ended questions, expand, and recast children's thoughts, throughout a child's play in that space (Pence et al., 2008).

A follow up article on the results of the Pence et al. (2008) study suggested that language curriculum, as utilized by teachers in this study, accelerated language development (within that same year) for those children who regularly attended preschool (Justice et al., 2008). On the basis of findings from past research and the consistent achievement of the pre-kindergarten participants throughout their study, Justice et al. (2008) predict high-level successes in future years, in areas such as reading comprehension. Though not included as an original measure, the study also revealed that over the course of a year, teachers' informal use of complex syntax strongly correlated to young children's understanding and use. Justice et al. (2008) believe that

this makes a compelling case for children's exposure to varied syntax, as provided by teachers, in their play environments.

Tools of the Mind: A Model of Integrated Language Curriculum

Two respected Vygotskian experts, Elena Bodrova and Deborah Leong (2001) created a curriculum known as "Tools of the Mind". Their approach is novel, and at the current time unmatched, in that it focuses on combining both elements known to promote children's literacy and language development, (1) classroom arrangement and material inclusion and (2) teacher's verbal roles. This is done by creating a system of integrated curriculum and "supported play" that operates on the underlying principles that make-believe play is the "leading activity" of young children, and that scaffolding is essential to children's learning (Bodrova & Leong, 2009). In brief, scaffolding occurs when a more experienced person assists a child—first they offer the child a great deal of help, but as the child begins to master the skill, they slowly withdraw their assistance.

One element of the program, "play plans", is motivated by the concept of scaffolding and encourages children to develop mature play through their supported environments. By giving background to this element, it will help illustrate both the process teachers go through in creating integrated curriculum and their role afterwards during the actual play; in essence, though, the process follows as such: themes, props, play plan, verbal interactions. In terms of curriculum development, teachers are encouraged to provide children with a variety of themes, such as transportation or safety, that serve as possible inspirations for pretend play. In providing props that support these themes, teachers allow for sustainment and development of the play scenarios. After this preparation on the teacher's part, the play plan can be mutually created. The play plan is created when children draw a picture of themselves in their chosen role and then try to

describe it in text; younger children often rely on assistance from the teacher (Bronson & Merryman, 2009). Finally, play begins, with the teacher casually enhancing the level of play through verbal communication with the children. Over the course of the year, children's literacy development is easily recognized as play plans evolve from dictated messages to children's attempts at writing their own words, demonstrating scaffolding at its finest (Bodrova & Leong, 2001; Bodrova & Leong, 2003).

The Tools curriculum has been evaluated in several small scale research studies. In one particular study, preschool children from two Tools classrooms were compared to the children of a control classroom on several "early literacy measures". Children from the Tools classrooms were more able to identify letters, match verbal pronunciations of sounds to corresponding written symbols, recognize that printed text represents meaning, and develop phoneme awareness, than were similar-age peers in the control group (Bodrova & Leong, 2009). In their novel, NutureShock, Bronson and Merryman (2009) review similar investigations of the efficacy of the Tools model, identifying that when play is given focus, such as through a play plan, it beomes more "complicated and interactive, mature, multi-dimensional, and sustained", allowing the opportunity for greater use and development of language. Benefits of the Tools of the Mind program clearly exist in terms of children's language and emergent literacy growth.

However, with a curriculum focused mainly on self-regulation, play plans appear to be one of the few program elements in which children initiate their own play, and even such, it is not entirely spontaneous as children are meant to maintain their same role throughout the entire 45 minute play period (Bronson & Merryman, 2009). The advantages of this program are very appealing, especially since it is the first of its kind; nevertheless, we cannot discount the importance of allowing children the time and freedom to play, without a plan in mind.

Reflective Teaching: A Resource for Helping Early Education Teachers Develop an Understanding of Their Role in the Classroom

Bodrova and Leong's Tools of the Mind curriculum serves as one example of an established approach to educating teachers about how to thoughtfully interact with young children. The Tools formula focuses on giving adults a structured, systematic method for merging adult-child verbal interactions naturally into the classroom environment, as is exemplified by the idea of play plans (Bronson & Merryman, 2009). Although a viable technique for many teachers, some may resist an approach that relies so heavily upon teacher initiation and direction. A different technique, reflective teaching, may accomplish the same basic principle (that is, assisting teachers in improving their verbalizations and function in the classroom), but in a more child-directed manner that accommodates spontaneity in play. Reflective teaching is the creation of psychologist John Dewey, and can be defined as "a disciplined inquiry into the motives, methods, materials, and consequences of educational practice," which allows teachers to thoroughly examine how "conditions [of their classroom] and [their] attitudes impede or enhance student achievement" (Norton, 1994, para. 3). This strategy has been shown to be beneficial for both teachers and the children in their classrooms.

A study on the effects of reflective teaching in improving teachers' overall performance in the classroom found that teachers felt the process of reflecting allowed them to consider their responses to children at a more meaningful level, and to recognize their own behaviors in the classroom as functions of influence on the children's reactions (Brown & Kennedy, 2011). A similar study reported that teachers felt the use of video recordings of themselves and peer teachers gave them "new perspectives" on their teaching practices (Zhang, Lundeberg, Koehler, & Eberhardt, 2011).

An example of a reflective teaching program, the MyTeachingPartner (MTP), was devised as a way of enhancing teacher-child interactions in young childhood classrooms to improve children's language and literacy development (Mashburn, Downer, Hamre, Justice, & Pianta, 2010). Developers of the MTP program conducted a study of about one hundred and thirty pre-kindergarten teachers. Teachers were randomly assigned to different conditions, in which they either received components of the MTP program or did not. The three parts of the MTP program consist of: (1) language and literacy activity plans, (2) video clips of exemplary teacher-child interactions, and (3) consultation with a trained expert. Language and literacy activity plans essentially offered teachers potential projects (along with instruction guides) that they could integrate into their own classroom. These plans were accompanied by video segments of more experienced teachers performing some of the suggested activities. The third factor, consultation, involved teachers sending videotapes of themselves interacting with children in their classrooms to an expert who then reviewed the footage and reflected with the teacher (over web conferencing) on areas of success and improvement (Mashburn et al., 2010).

Compared to teachers in the control group, teachers who experienced all three components of the MTP program showed an increased ability to (1) appropriately read and respond to students' verbalizations and (2) encourage children's language development. Children of these teachers were more successful in developing language skills during pre-k than children of teachers that received everything but the consultation element (Mashburn et al., 2010). As evidenced by each of these studies, reflective teaching can be a very successful tool in improving teacher-child interactions and children's resultant responses and learning.

Findings Summarized and a Direction for Further Research

In sum, the wealth of research on learning as a social process (as proposed by Vygotsky) has shed light on the importance of language and literacy use in early childhood play, especially when one considers the evidence that early literacy behaviors contribute to children's later language development (Morrow, 1990; Connor et al., 2006). Many practices teachers can utilize to support children's early language and literacy development have been identified. Small changes to the classroom environment to include literacy-related materials and thematic settings, and adding a language element through integrated curriculum are a few ways preschool and kindergarten teachers can alter their classrooms to be more literacy-rich environments. In addition, teachers can tailor their verbal interactions with students to encourage language growth through a variety of techniques, such as, sophisticated vocabulary and open-ended questions.

Though all of these strategies have had positive results (when implemented individually), development towards a unified curriculum, one that encompasses the best of these findings, has yet to be fully explored. Without a "packaged" curriculum, aimed towards building language and literacy development into children's play environments and situations, application in classrooms is not practical for early educators. Two approaches to enhancing language development by attending to both environment and teacher verbalizations are Tools of the Mind curriculum and reflective teaching. Based on the principles of Vygotsky's work, Leong and Bodrova's Tools of the Mind curriculum is the first innovative attempt at accomplishing the task of incorporating language and literacy development into the classroom in a comprehensive way. However, while it has been shown effective in fostering children's current and future language and literacy development, it does not target children's spontaneous play as a means of developing these skills, but rather looks toward structuring their play. That said, this program could potentially serve as a strong foundation for language-based curriculum, but there must be integration of the

aforementioned language-developing play components found in other research to round-out the structure and emphasize the importance of child-initiated play.

An alternative approach to Tools is reflective teaching, a process in which teachers review and develop their teaching style to be responsive to children's interests and play scenarios. Because of this structure, reflective teaching has the potential to enhance preschool and kindergarten children's language and literacy development during their spontaneous play. Inspired by the literature on reflective teaching as a training practice, in particular the success of the MTP approach, the objective of the current project parallels (to a much smaller degree) the program and evaluation process utilized by the MTP. I sought to explore the effects of a reflective training session aimed at improving novice teachers' understandings of language and literacy-focused practice on their spontaneous interactions with children during play.

CHAPTER THREE

METHODS

Participants

Eight student teachers enrolled in the Cal Poly San Luis Obispo Preschool Lab course during Winter Quarter of 2012 participated in this study. Selection of the four target students (those who would receive treatment) from amongst 20 female, Child Development undergraduate students enrolled in the lab course was based on their group's starting position (dramatic play) in the lab rotation schedule. The other four (control) students were also selected because of their placement in the rotation schedule (creative arts), because their baseline data was necessary for comparison to target students' interactions within that same exploration area. Over the course of the quarter, student groups travel amongst five different "exploration areas" to create curriculum and interact with children. The areas are: building, nature, dramatic, creative, and social.

Building is focused on the use of manipulatives for construction and structure creation. The area of nature encourages exploration of science and things in the natural world. Similar to typical classroom structure, student teachers running the dramatic play area develop activity plans that foster children's imagination and pretend play. The creative area is typically designated to studio arts, such as painting. And finally, social exploration centers around circle time and lunch, in which children seated together at a table engage one another over a storybook presented by the residing student teacher. Examining the context of dramatic play was determined as particularly important in the design of this case study because it was the area most similar to those investigated in existing literature; thus, target students were chosen as a means of procuring data within this curriculum area.

Materials

In order to collect data, video equipment was positioned in the focus curriculum areas on days when recording was to occur. Video equipment primarily consisted of video cameras and tripods, and when necessary (due to loud background noise and limited sound intake on the cameras), external microphones were utilized. Training of the target student teachers required the use of a laptop computer to view video footage, and a series of handouts and worksheets that focused their attention during footage viewing and reflective training. The first handout, "Language Expansion versus Language Extension", is a product of Super Duper Publications, a company that publishes free "informational newsletters" for teachers and parents on their online website (http://www.superduperinc.com). Students also received an original handout summarizing and explaining the main literacy measures utilized in previous research and in the coding portion of this study. Worksheets accompanying the handouts consisted of space for students to record their specific observations during viewing of the selected video footage. A five minute DVD was created on iMovie from segments recorded during the first day of observation. The segments were specifically chosen to represent positive verbal interactions, and situations that clearly could be improved both in material inclusion and quality of verbalizations.

Design

Basic design consisted of behavioral observations of the target group pre- and post-training during weeks two through eight, and of the control group within the first two weeks of lab. The treatment group was filmed for baseline data collection and outcome data collection, and also participated in the training session; the control group was involved only in baseline data collection. This structure is demonstrated visually in Table 1.

Table 1 Overall Structure

	Baseline Data Collection	Training	Outcome Data Collection

Treatment Group	√	√	√
Control Group	√		

During the course of data collection, as required by lab structure, groups rotated between the various exploration areas. Baseline data for the treatment group was collected exclusively in the dramatic play area, and within the creative arts area for the control group. This totaled to four 5-minute observations per baseline exploration area. Outcome data collection presented a much greater range in representation, with two observations made in dramatic, three in creative, and finally one in nature. There are six outcome observations (as opposed to four) because two teachers were each filmed twice—this was done in order to have data for both within group (pre- and post-training dramatic area) and out of group (treatment creative versus control creative) comparisons. The filming breakdown of each group by exploration area can be found in Table 2.

Table 2 Group and Exploration Areas (N=number of five minute observations)

	Baseline Data Collection	Outcome Data Collection
Treatment Group	Dramatic (N=4)	Dramatic (N=2) Creative (N=3) Nature (N=1)
Control Group	Creative (N=4)	

The movement of the target group throughout the different curriculum areas also resulted in varied data collection for each student teacher. Table 3 documents each individual student's rotation throughout the course of filming, both for baseline and outcome data collection. For example, Student 1 was first recorded interacting in the dramatic play area to establish her baseline, and then again post-training in the nature exploration area to serve as her outcome representation. Recall that I recorded Students 2 and 3 in two areas to allow for multiple comparisons to be made.

Table 3 Treatment Group by Student and Exploration Area

	Baseline Data Collection	Outcome Data Collection
Student 1 (S1)	Dramatic	Nature
Student 2 (S2)	Dramatic	Dramatic, Creative
Student 3 (S3)	Dramatic	Dramatic, Creative
Student 4 (S4)	Dramatic	Creative

Procedure

The procedure for this study involved three stages: baseline data collection, student teacher training, and outcome data collection.

Baseline Data Collection

I videotaped all four target teachers' baseline interactions with the children in the dramatic play area prior to the training session. Over the course of the observations, activities available in that area included books, dress-up clothes, puzzles, a toy cash register and plastic groceries, and child-sized toy kitchen appliances and dining table. Footage reflected interactions that took place on two days, with the first two target students recorded on a Friday and the other two the following Monday. Recording occurred at roughly the same time each day, beginning at 9:40 in the morning and ending approximately 50 minutes later. Although clearly visible to both students and children, I positioned the camera just outside of the play area in an effort to minimize my intrusion in the space. Instructions to students suggested that they remain natural and attempt to act as though the video camera was not there, as this would help children to do the same, and would result in the most genuine interactions possible given the presence of recording equipment.

In addition to videotaping the target students, additional footage collected on the same two days documented the interactions between another group of four student teachers and

children as they engaged within the creative arts area of the classroom. The second group served

as a control comparison to (1) ensure that the target group had similar baseline behaviors to their

peers and (2) account for potential curricular area-related differences based on observations of

the target group's later interactions in the creative arts area.

Reflective Teacher Training Session

Following the two days of baseline data collection, I conducted an hour long training

session. Target student teachers received a small incentive (lunch) for their participation. The

training procedure was based on reflective practice because of the strong associations between

this type of training and teachers' improved performance in the classroom. I integrated

successful components of the various prior training studies into the material presented during the

session. Specifically, students received a brief introduction to the practice of reflective teaching,

and then watched a DVD recording of a five minute selection from their baseline interactions,

during which they were given the chance to reflect in writing on their own interactions, as well

as those of me (a "more experienced other"). As a group, we reviewed their notes and discussed

the following four critical questions: (1) Were your expectations for what would happen in this

area met; why or why not?, (2) What worked well, what did not?, (3) Is the space arrangement

working; what materials would you add or take away?, and (4) Now that you have watched this,

how would you interact differently with the children?

I then introduced the focus of my study—the role of teachers in enhancing children's

language and literacy development—and the category measures I was observing, compounded

from the methodology of previous research studies. (For a complete list of the observation

measures, see section below, "Data Reduction and Coding"). Participants were then given two

handouts that reiterated my verbal definitions of the target measures and directed them to take

notes on their observations. The second round of tape viewing commenced, and student teachers observed for occurrences of the two specific measures they were each assigned. Following this, each student reflected on the coding measures they had looked for, and I gave a general overview of what I saw happening and pointed out missed opportunities for where utilizing the discussed techniques could have enhanced the children's use of language, and encouraged literacy development. Final thoughts and questions were answered, and participants were left with key pointers from the training and reminded to review their training notes and handouts throughout the course of the quarter.

Outcome Data Collection

Following training, the target group continued to be filmed over the course of the next four weeks to gather data on each student's post-training interactions. Outcome data collection generally occurred on Friday mornings during the same time period as that which was used for baseline collection; this structure was involved to retain as much consistency as possible. One exception was made during the last week due to a conflict with activity scheduling that was not conducive of filming (a whole class field trip), in which filming occurred instead on the Wednesday of that week and lasted for only ten minutes.

Because of the structure of the rotation schedule implemented by the lab director, post-training filming covered multiple areas of curriculum. Outcome data for two of the target teachers was collected in the dramatic play area, as this would serve as a direct comparison (within the same curriculum area) to their interactions prior to the training session. Another student's outcome was based on time spent in the creative area, and the last student engaged children in a nature activity during outcome filming. Two additional observations were made of

target students in the creative area (for a total of three outcome observations in creative) to allow

for comparisons with the baseline control group.

Data Reduction and Coding

As each weekly filming was completed, the tapes were uploaded to a computer and then

copied onto DVDs for permanent records. In order to evenly evaluate each of the four student

teachers (given their differing amounts of time on screen), time in which a target student was

present and interacting with children was divided into five minute long segments. A five minute

long segment qualified for coding if the student was present and engaged with a child for at least

four of those minutes. One segment per student teacher was randomly selected from eligible

segments from both baseline and outcome data.

Segments were reviewed twice. During the first viewing, behaviors of the student were

coded according to the operational definitions of each measure. The following measures for

student teachers were observed: open-ended questions, close-ended questions, expansions,

modeling of the proper use of literacy materials, recasts, extending, and unspecified/other

utterances (see Table 4 below for detailed descriptions and examples).

Table 4 Observational Measures

Measure	Operational Definition	Example
Open-ended Questions	Questions that cannot be answered with "yes" or "no".	Adult, "What do you think that could be?"
Close-ended Questions	Questions that can be answered with "yes" or "no".	Adult, "Do you like trucks?"
Expansions	Repetition of a child's words with missing information filled in.	Child, "Him run." Adult response, "Yes, he is running."
Modeling	Nonverbal or verbal direction of the proper use of literacy materials	Adult, "This is a pen. It is used to write on paper." [demonstrate]
Recasts	Repetition of a child's utterance using different syntax.	Child, "I hate him. He always takes my bike." Adult response, "It makes you upset when he takes your bike."

Extending	Helping children produce more complicated sentence structures by elaborating on the topic at hand/adding new information and building on children's play interests.	Adult could suggest that a child create a shopping list when the child is making plans to go to the grocery store.
Unspecified/Other Utterances	Phrases that do not fall in any of the designated categories.	Adult repeats verbatim what the child says.

Coding for the aforementioned measures involved running totals, which were combined post-viewing to create an overall category "total teacher utterances". Material inclusion within the designated exploration area was also recorded—I marked present/not present for writing tools, writing surfaces, reading tool, storybook materials, and relevant music (example objects and descriptions listed in Table 5).

Table 5 Literacy Material Inclusion

Literacy Material	Descriptive	Example Object(s)
Writing Tool	An instrument that allows the user to express language, or other ideas, visually.	Pen, pencil, marker
Writing Surface	Something that can be written on.	Paper
Reading Tool	Object that displays letters or words, and requires the viewer to attempt to read and interpret the meaning of the symbols.	Book, poster or sign with words, pamphlet
Storybook Materials	Materials related to books read in class and displayed throughout the classroom.	Images or quotes taken from the story
Relevant Music	Music that has some relation to the "theme" of the play area.	"Wheels on the Bus" for a transportation themed area

Finally, children's utterances were tallied throughout the selected five minute segment to be employed as a comparison to the total teacher utterances category. Qualitative coding was utilized throughout the second time watching the segment, ensuring a descriptive component to data collection.

CHAPTER FOUR

RESULTS

Results from this study are presented in four main sections. The first section explores the

types of talk that novice student teachers use when interacting with children prior to receiving

any type of training. The second section examines baseline data for both the treatment and

control groups, assessing specifically for any significant differences between the two groups'

overall interaction styles pre-training. It was hypothesized that there would be no significant

differences between groups. The third section compares the interaction styles of control group

members at baseline data collection and treatment group members at outcome data collection in

the same curricular area, creative arts. The corresponding hypothesis followed the understanding

that post-training, student teachers in the treatment group should demonstrate a greater use of the

literacy techniques than students in the control group. Finally, the fourth section examines the

relationship between the treatment group's overall baseline and outcome interactions (note: only

data for outcome one was included for students 2 and 3). The third hypothesis, that student

teachers post-treatment should display an increase in their use of literacy measures over time,

was the basis for this comparison.

How do Novice Student Teachers Talk with Young Children?

The current study was interested in first determining how novice student teachers are

naturally (without training) utilizing different literacy techniques in the classroom (depicted in

Figure 1). Overall, the mean number of utterances for students during a five minute segment was

found to be M=30.75 (SD=16.45), with a range of 12 to 60 utterances.

A repeated measures ANOVA with Talk Type (7) as a within-subject variable, revealed

significant differences in participants' use of each of the talk types identified in the coding, F (1,

7) = 18.35, p < .01. LSD post-hoc analyses indicated that participants used "Other" forms of talk more than any other talk category, p < .01. In addition, they used Close-Ended and Open-Ended questions more than they used Expansions, Modeling, Recasting, or Extending, p < .05 for all comparisons. There was no significant difference in participants' use of Open versus Closed-Ended Questions, p=n.s. Similarly, Expansions, Modeling, Recasting, and Extending did not differ from one another, p=n.s.
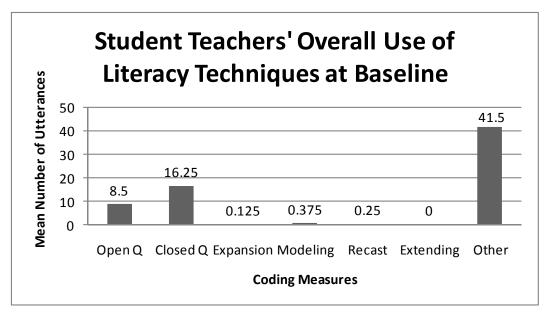

Figure 1 Mean Number of Utterances (by Measure) for Students' Baseline Use of Literacy Techniques Collapsed Across Groups

Do the Treatment and Control Groups Differ at Baseline?

To establish a comparison between treatment and control groups pre-training, data were collected for students in each group in their first assigned exploration area; respectively, these were dramatic and creative (Figure 2 below). The goal was to establish whether the two groups began their participation in the study using a similar amount of literacy techniques. An independent samples t-test indicated that the total number of utterances observed for members of the treatment group (M=30.25, SD=22.72) did not differ from that of the control group (M=31.25, SD=10.69), t(6)= -.08, p=n.s.

A 2 Group (Treatment, Control) x 7 (Talk Type: Open-Question, Closed-Question, Expansion, Modeling, Recast, Extending, Other) repeated measures ANOVA showed a main effect of Talk Type, $F(6, 42)= 3.05$, $p< .05$. Once again, LSD post-hoc analyses determined that participants used "Other" forms of talk more than any other talk category, $p < .01$. It was also revealed that Open-Ended and Close-Ended questions were used to a greater extent than were Expansions, Modeling, Recasting, or Extending, $p < .05$ for all comparisons. A significant difference in participants' use of Open versus Closed-Ended Questions did not exist, $p =.07$. It was found that Expansions, Modeling, Recasting, and Extending did not differ from one another either, p=n.s. Further, the analysis supported the hypothesis that at baseline data collection, prior to any intervention, the treatment and control groups would present comparable levels of literacy technique use in their interactions with children. No significant connection between Group and Talk Type was found, suggesting that the groups did not differ for any of the coded talk categories, $F (6, 36)= .25$, $p = $ n.s.
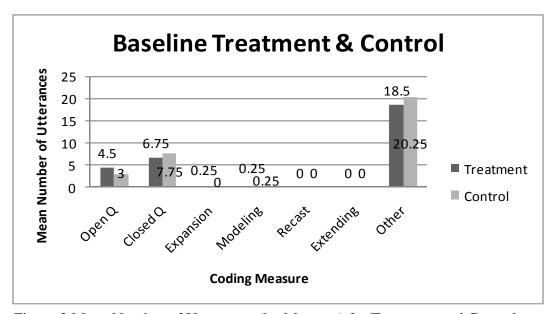

Figure 2 Mean Number of Utterances (by Measure) for Treatment and Control Groups at Baseline

Do the Control Group and Treatment Group Differ in their Interactions with Children at the Creative Arts Area?

Video footage of both the control group and treatment group members interacting in the creative arts area were coded for use of literacy techniques and then compared against one another. An independent samples t-test discerned that the total number of utterances observed for members of the treatment group within the creative arts area (M=19.33, SD=8.5) did not differ from that of the control group (M=31.25, SD=10.69), $t(5)= -1.58$, p= n.s. A 2 Group (Treatment, Control) x 7 (Talk Type: Talk Type: Open-Question, Closed-Question, Expansion, Modeling, Recast, Extending, Other) repeated measures ANOVA revealed a main effect of Talk Type, $F(6, 30)= 36.22$, $p< .05$. Participants used "Other" forms of talk more than any other talk category, $p < .01$, as determined by LSD post-hoc analyses. The use of Close-Ended and Open-Ended questions more frequently than Expansions, Modeling, Recasting, or Extending, $p < .05$ for all comparisons, was found yet again. However, there was no significant difference in participants' use of Open versus Closed-Ended Questions, $p =.11$. Additionally, Expansions, Modeling, Recasting, and Extending did not differ from one another, $p = n.s$. Given the lack of a significant difference, the second hypothesis (that post-training, student teachers in the treatment group would utilize literacy techniques at a higher frequency than control group students) was not confirmed.
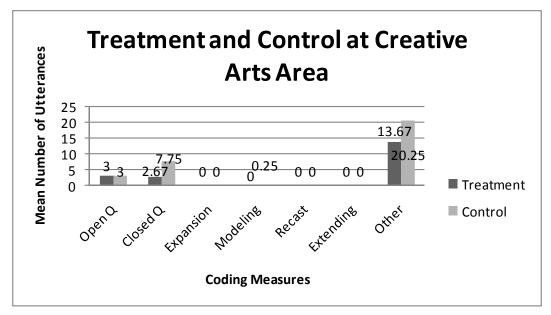
Figure 3 Mean Number of Utterances (by Measure) for Control and Treatment
Groups in the Creative Arts Area

How do Treatment Student Teachers' Post-Training Literacy Behaviors Compare to Their Pre-Training Interactions?

The final comparison was drawn between the treatment group's baseline and outcome

data (again, students 2 and 3 are represented by data only for outcome one in this section). A 2

Group (Treatment Pre-training, Treatment Post-training) x 7 (Talk Type: Open-Question,

Closed-Question, Expansion, Modeling, Recast, Extending, Other) repeated measures ANOVA

established a main effect of Talk Type, $F(6, 36)= 19.42$, $p< .05$. "Other" forms of talk were used

on a more frequent basis than any other talk category, a finding of a LSD post-hoc analyses test,

$p < .01$. The measures of Expansion, Modeling, Recasting, and Extending were all revealed to be

less utilized than Close-Ended and Open-Ended questions, $p < .05$ for all comparisons. That said,

there did not appear to be a significant difference in participants' use of Open vs. Closed-Ended

Questions, $p =.16$. Once more, significant differences did not arise in how Expansions,

Modeling, Recasting, and Extending were used, $p = $ n.s. In addition, an independent samples t-

test was run on the data, and indicated that the total number of utterances observed for members

of the treatment group pre-training (M=30.25, SD=22.72) were not different from the treatment

group post-training (M=41.25, SD=19.29), t(5)= -0.74, p= n.s. These findings did not provide

evidence to confirm the hypothesis that students would use more literacy techniques in their

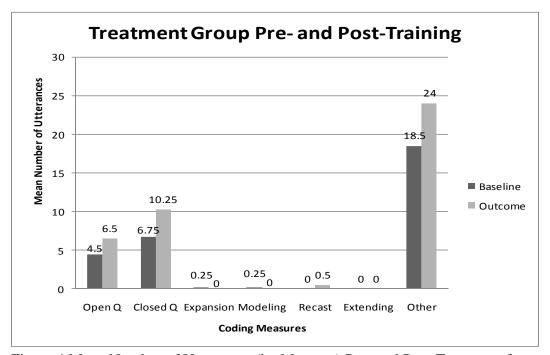interactions with children post-treatment.

Figure 4 Mean Number of Utterances (by Measure) Pre- and Post-Treatment for
Treatment Group

CHAPTER FIVE

DISCUSSION & CONCLUSION

The purpose of this study was to observe the effects of a reflective teacher training session on student teachers' literacy behaviors in a preschool classroom. Four target students were assigned to receive the treatment condition of training, while a different group of four students served as the control group. Observations of the type and quantity of literacy behaviors being used by student teachers were made prior to training for all participants, and again post-training for those in the treatment group. Additionally, classroom exploration areas were assessed both pre- and post-training for inclusion of literacy materials.

The results from the current study reveal that there were no significant differences between treatment and control groups pre- and post-training; these findings confirmed the first hypothesis (that treatment and control groups would present similar levels of literacy use pre-training) but were not able to confirm the second (that post-training, the treatment group would exhibit greater uses of the literacy measures than the control group). The last hypothesis, the primary focus of this study, was also not confirmed as no significant differences within the treatment group pre- and post-training were found. Finally, given the low levels of literacy material inclusion presented by both the treatment group pre- and post-training and the control group, it was determined that there were no substantial differences to report and that training had no effect on how classroom exploration areas were arranged.

While these findings are discouraging in terms of the potential for reflective training intervention as an influence on teacher's talk and classroom arrangement, there are many facets of the treatment design that could account for the lack of confirming evidence. Limited exposure to reflective teaching, ineffective training content, no exploration into change on an individual

basis, inattention to children's involvement, and a restrictive filming schedule and coding system are all considered in terms of their relationship to current findings and potential influence on future research. Suggestions for future research are offered.

Reflective Teaching Analyzed

To begin with, limitations surrounding the particular structuring of reflective teaching used in this study might have contributed to the insignificant differences found between pre- and post-training behaviors demonstrated by the treatment group. Training occurred only once throughout the quarter, and happened within the first few weeks of the student teachers meeting the children. It is possible then, that within this study, reflective teaching was ineffective in increasing students' literacy behaviors because of such a short, inadequate exposure to the process. Offering multiple training sessions, a structure used by Mashburn et al. (2010) in the MTP program, would provide student teachers with the opportunity to repeatedly practice using the literacy techniques with the aid of a more experienced other, and could better reinforce the importance of incorporating these various talk types into early education classrooms.

In addition to the structure of training, the actual content offered in the session should be considered as a potential influence on student's behaviors. Reviewing post-training observations, it is evident that student teachers, of both the treatment and control groups, overwhelming relied on the use of questions and verbalizations coded as "Other" to engage children. For instance, students would often ask children a question, receive an answer, and then repeat verbatim the child's utterance. It was typical that the measure of "Other" reflected such word for word repetitions on the part of student teachers. The challenge, then, would be to help students become comfortable using literacy techniques beyond repetition and questions. In terms of future

research, reflective training sessions should be revised to place a stronger focus and emphasis on the other types of verbalizations presented throughout this study.

A different direction for research might employ training that follows more closely the structure of the Tools of the Mind curriculum. Modeling the use of directive, programmatic ways of verbally communicating with children may be necessary for novice student teachers to scaffold their early interactions and expand their repertoire of techniques. This system could be phased out and replaced with reflective teaching once students demonstrate capability in utilizing talk types beyond questions and utterances categorized as "Other". It is possible that following this training strategy, students could transfer their knowledge and exhibit a lasting increase in their use of a variety of literacy techniques.

The type and implementation of training were arguably not presented in an ideal manner, but, regardless of training, it is expected that with increased comfort around the children, a product of having worked with them for an extended period of time (such as that offered by the Preschool Lab), student teachers would exhibit changes in their interactions with said children. Within the realm of language, this would be displayed by an increase in students' use of talk types beyond their starting point reliance on questions and phrases coded as "Other". Treatment students did not show any significant differences in their use of literacy techniques post-training, which reflects that while training did not appear to have any effect on student teachers' talk type usage, neither did having extensive interaction with the children. Given their time in the lab, a degree of natural language growth is expected, but was not evident in these student teachers. Thus, it is reasonable to assert that the students working in this lab setting might have needed more intensive intervention, possibly in the form of more elaborate training or more frequent interaction with expert models, to show any type of change in their literacy behaviors.

In terms of study design, future work should also look at patterns of change in individual teachers in the treatment group. The current set of analyses collapses across all participants within a group, thus overlooking the possibility that treatment may have impacted individuals in different ways. Without this level of investigation, it is impossible to determine whether the training session was an effective tool in altering individual student teachers' interaction styles from pre- to post-training. Given that large standard deviations existed for students' overall utterances in data sets for both pre-training (SD=22.72) and post-training (SD=19.29), considering the possibility of individual development may be critical to the interpretation of the success of reflective teaching as a training strategy. Student teachers in this study clearly demonstrated differing levels of communication with children, exemplifying the idea that there is natural variability in students' approaches to verbal communication. Examining group averages eliminates the potential to learn whether particular individuals change and others do not, and what characteristics might define those who do demonstrate change. Studying each individual independently of the other student teachers would be one approach to analysis to further explore.

Filming and Coding

Another point of interest not addressed in this study might look at how children are contributing to the interactions, and how this could have affected students' verbalizations. Most children in the lab have a history of communicating with novice student teachers and may elicit, as opposed to receive, particular types of talk (for instance questions, because they offer "easy" conversation). Reviewing and coding the data through the perspective of the child might reveal that children, more than students, are directing the conversation style. If this were found to be the case, training would again need modification to reinforce the importance of using alternative types of utterances to mature children's conversations.

A final factor lies in the filming schedule and coding system followed by this study. It is possible that because data collection was limited to Fridays (the day of the week when attendance of children is often low), interactions did not truly reflect typical classroom functioning. In addition, because only five minutes for each student per tape were randomly selected to code, these segments may not be true representations of the student teachers' interaction styles. To improve this design, future research should allow for recording throughout the week and coding for larger segments of time, as a means of increasing the accuracy of representation set forth by potential observational data. The recognition of the limitations of the current study allow for improvements to be made within the methodology of future research on this topic.

Conclusion

In this study, reflective teaching was not able to replicate the positive outcomes expressed in previous research. This may in part be due to the fact that the focus of this study was on growth in student teachers' use of literacy behaviors; however, the existing literature instead measured teachers' perceptions about their role in the classroom during or after participation in reflective teaching sessions, and children's resultant learning outcomes. While no change in use of literacy behaviors was noted by my results, it is relatively unknown whether reflective teaching has ever found such an outcome. Additionally, I did not assess whether the training was associated with any type of change in students' perceptions post-training, or if children demonstrated growth in their language development as a result of interacting with "trained" student teachers. Because of the differences in how reflective teaching was analyzed, it is difficult to make a connection between results demonstrated by previous studies and my own. Thus, it is also challenging to discern whether the anticipated effects of reflective training

expected by my study would actually be reasonable. Further, though my results were not ideal, this could be attributed to the aforementioned flaws in the design of the training session, and to other factors related to coding and filming. Nevertheless, given the success of reflective teaching as a training strategy found in earlier literature, with some redesign to the methodology presented in this study, it is possible that reflective teaching could have been effective in increasing student teachers' use of varied literacy behaviors.

Research on learning as a social process (Vygotsky's proposal) provides evidence confirming the significance of language and literacy use in early childhood play, and offers many positive findings about the association between teachers' involvement in the classroom and this type of children's development. Considering the strong supportive findings that early language and emergent literacy behaviors contribute to children's future language and literacy development, it is evident that efforts to help teachers promote these skills are of value. Although not supported by the data from this study, additional research should explore the relationship between repeated exposure to well-tailored reflective teaching sessions and teachers' use of different talk types. Beyond reflective teaching, other lines of research should be conducted in order to better understand the role teachers of young children need to assume in guiding this growth in a positive, age-appropriate manner.

References

Bluiett, T. (2009). Sociodramatic play and the potentials of early language development of preschool children. (Doctoral dissertation). Retrieved from Dissertations and Theses: The Humanities and Social Sciences Collection. (Publication No. AAT 3390536)

Bodrova, E., & Leong, D. J. (2001). *The Tools of the Mind Project: A case study of implementing the Vygotskian approach in American early childhood and primary classrooms.* Geneva, Switzerland: International Bureau of Education, UNESCO.

Bodrova, E., Leong, D. (2003). The importance of being playful. *Association for Supervision and Curriculum Development, 60*(7), 50-53.

Bodrova, E., & Leong, D. J. (2009). Tools of the mind: A Vygotskian-based early childhood curriculum. *Early Childhood Services: An Interdisciplinary Journal of Effectiveness*, *3*(3), 245-262.

Bronson, P. & Merryman, A. (2009). *NutureShock: New thinking about children.* New York: Twelve.

Brown, K., & Kennedy, H. (2011). Learning through conversation: Exploring and extending teacher and children's involvement in classroom talk. *School Psychology International*, *32*(4), 377-396. doi:10.1177/0143034311406813

Christie, J. F., & Enz, B. (1992). The effects of literacy play interventions on preschoolers' play patterns and literacy development. *Early Education and Development*, *3*(3), 205-220. doi:10.1207/s15566935eed0303_1

Connor, C., Morrison, F. J., & Slominski, L. (2006). Preschool instruction and children's emergent literacy growth. *Journal of Educational Psychology*, *98*(4), 665-689. doi:10.1037/0022-0663.98.4.665

Dickinson, D. K., & Porche, M. V. (2011). Relation between language experiences in preschool classrooms and children's kindergarten and fourth-grade language and reading abilities. *Child Development*, *82*(3), 870-886. doi:10.1111/j.1467-8624.2011.01576.x

Justice, L. M., Mashburn, A., Pence, K. L., & Wiggins, A. (2008). Experimental evaluation of a preschool language curriculum: Influence on children's expressive language skills. *Journal of Speech, Language, and Hearing Research*, *51*(4), 983-1001. doi:10.1044/1092-4388(2008/072)

Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. M., & Pianta, R. C. (2010). Consultation for teachers and children's language and literacy development during pre-kindergarten. *Applied Developmental Science*, *14*(4), 179-196. doi:10.1080/10888691.2010.516187

Massetti, G. M. (2009). Enhancing emergent literacy skills of preschoolers from low-income environments through a classroom-based approach. *School Psychology Review*, *38*(4), 554-569.

McCabe, P. C., & Meller, P. J. (2004). The Relationship Between Language and Social Competence: How Language Impairment Affects Social Growth. *Psychology in the Schools*, *41*(3), 313-321. doi:10.1002/pits.10161

Morrow, L. (1990). Preparing the classroom environment to promote literacy during play. *Early Childhood Research Quarterly*, *5*(4), 537-554. doi:10.1016/0885-2006(90)90018-V

Norton, J. (1994). Creative thinking and the reflective practitioner. *Journal of Instructional Psychology*, *21*(2), 139-147.

Ostrosky, M. M., Gaffney, J. S., & Thomas, D. V. (2006). The interplay between literacy and

    relationships in early childhood settings. *Reading & Writing Quarterly: Overcoming*

    Learning Difficulties, *22*(2), 173-191. doi:10.1080/10573560500242275

Pence, K. L., Justice, L. M., & Wiggins, A. K. (2008). Preschool teachers' fidelity in

    implementing a comprehensive language-rich curriculum. *Language, Speech, and*

    Hearing Services in Schools, *39*(3), 329-341. doi:10.1044/0161-1461(2008/031)

Rosenquest, B. B. (2002). Literacy-based planning and pedagogy that supports toddler language

    development. *Early Childhood Education Journal*, *29*(4), 241-249.

    doi:10.1023/A:1015133724460

Roskos, K., & Neuman, S. B. (1993). Descriptive observations of adults' facilitation of literacy in

    young children's play. *Early Childhood Research Quarterly*, *8*(1), 77-97.

    doi:10.1016/S0885-2006(05)80099-7

Saracho, O. N. (2001). Exploring young children's literacy development through play. *Early*

    Child Development and Care, 167103-114. doi:10.1080/0300443011670109

Saracho, O. N. (2002). Teachers' roles in promoting literacy in the context of play. *Early Child*

    Development and Care, *172*(1), 23-34. doi:10.1080/03004430210877

Saracho, O. (2004). Supporting literacy-related play: Roles for teachers of young children. *Early*

    Childhood Education Journal, *31*(3), 201-206.

    doi:10.1023/B:ECEJ.0000012138.07501.44

Saracho, O. N., & Spodek, B. (2007). Oracy: Social facets of language learning. *Early Child*

    Development and Care, *177*(6-7), 695-705. doi:10.1080/03004430701377540

Schrader, C. T. (1990). Symbolic play as a curricular tool for early literacy development. *Early*

    Childhood Research Quarterly, 5(1), 79-103. doi:10.1016/0885-2006(90)90008-O

Sherrod, K. B., Siewert, L. A., & Cavallaro, S. A. (1984). Language and play maturity in

    preschool children. *Early Child Development and Care*, *14*(1-2), 147-160.

    doi:10.1080/0300443840140110

Zhang, M., Lundeberg, M., Koehler, M. J., & Eberhardt, J. (2011). Understanding affordances

    and challenges of three types of video for teacher professional development. *Teaching*

    And Teacher Education, *27*(2), 454-462. doi:10.1016/j.tate.2010.09.015