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**PRE-SERVICE STUDENT-TEACHERS' PERCEPTIONS OF PLAY IN THE
EARLY CHILDHOOD CLASSROOM AFTER RESEARCH ANALYSIS WITH
DISCUSSION-CASE APPLICATION: A SEQUENTIAL EXPLANATORY
MIXED METHODS APPROACH**

by
Meredith Resnick

A Dissertation

Submitted to the
Department of Educational Leadership
College of Education
In partial fulfillment of the requirement
For the degree of
Doctor of Education
at
Rowan University
January 28, 2016

Dissertation Chair: Ane Turner Johnson, Ph.D

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Dedication

I would like to dedicate this manuscript to my father, Robert M. Urband (September 10, 1947- April 25, 2011), in memoriam. My dad was always my biggest fan, so I know that from his vantage point today, he is still cheering me on. Through his example, my father inspired and encouraged my passion for learning. This is for you Dad!

“I don't want you grieving for me.

*I want you to live your life to the fullest
and enjoy as much of it as you can in your own way.*

If that happens I sort of live on through you”

- RMU (2010)

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I would like to express my appreciation to my family and friends for their encouragement and understanding. I owe a very special thanks to my mom and step-dad, Haralyn and Morton Gluck, for their unwavering backing and love. Most especially, I am deeply grateful to my husband, Demian Resnick, for his seemingly endless support and understanding throughout the process, even when it meant more childcare for him and a messy home. Honey, I promise, this is the very last degree! A very sizeable thanks must go to my amazing children Griffin, Sky, and Riley. You have been accepting and supportive of my commitment to becoming a doctor, even when it took your mom away from you. I'm so proud of all three of you and I can't wait to continue to watch you grow and make your mark on this world.

Abstract

Meredith Resnick

PRE-SERVICE STUDENT-TEACHERS' PERCEPTIONS OF PLAY IN THE EARLY
CHILDHOOD CLASSROOM AFTER RESEARCH ANALYSIS WITH DISCUSSION-
CASE APPLICATION: A SEQUENTIAL EXPLANATORY MIXED METHODS
APPROACH

2015-2016

Ane Turner Johnson, Ph.D
Doctor of Education

Despite persuasive research demonstrating the importance of play in early childhood education, there is a problematic trend in early childhood classrooms of increased academics and high-stakes test preparation, with less opportunity for play (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011). This sequential explanatory mixed method study was designed to examine the impact and experience of participating in facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. The findings indicate that research analysis with discussion-case application may serve as an effective strategy for reversing the disappearance of play in early childhood classrooms. Implications for modifying the single continuum model of developmental appropriateness are discussed as well as consequences for preparing pre-service teachers.

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Chapter 1

Introduction

Our society's future depends upon the way we treat and educate children. In an increasingly competitive and global environment, an especially creative and capable workforce will be required (Heckman, 2011a). Quality early childhood education is an investment in future human capital and the type of workforce that will be required (Heckman, 2011a). The Center on the Developing Child at Harvard University (2010) asserts, "a vital and productive society with a prosperous and sustainable future is built on a foundation of healthy child development" (p. 2). Research suggests that high-quality early childhood programs result in long-term benefits for children, their families, and society as a whole. These benefits include bolstered reading and math skills, increased high school graduation rates, higher college enrollment rates, greater family incomes, and lower rates of incarceration and dependence on public assistance later in life (Schweinhart, 2004). The impact of quality early childhood education is dynamic because "skill begets skills; motivation begets motivation" (Heckman, 2011b, p. 3). That is, if a young child is motivated and stimulated to learn during the early childhood stage of development, she is more likely to become an adult that will succeed socially and economically (Heckman, 2011b). Therefore, the early years of a child's development are crucial and "A portfolio of childhood investment weighted toward the early years is optimal" (Heckman, 2011b, p. 15).

Quality early childhood education is an influential tool for advancing the lives of children long term and across their lifespans (Heckman, 2011c). James Heckman, a Nobel Prize winning economist from the University of Chicago, has documented the

significant gains for society when they invest in quality early childhood education. In a letter to the National Commission on Fiscal Responsibility and Reform, Heckman (2011c) advocated for investment in early childhood, concluding, “Early childhood education is a moral imperative with an economic payoff.” (p. 10). Longitudinal studies of high quality early childhood education programs reveal that the long-term economic return on investments in young children is very high (Heckman, 2000).

The Disappearance of Play

Because early childhood is a crucial period in development, with long-term implications, early childhood education plays a vital role in our society’s future. An individual’s development across the life span is significantly influenced by exogenous factors during early childhood, including the educational experiences of the child during the first eight years of life (Bowman, Donovan, & Burns, 2001). Unfortunately, we are facing a national crisis caused by the “miseducation” of our youngest students, as developmentally inappropriate experiences permeate the nation’s early childhood classrooms and “do serious damage to a large segment of the next generation” profoundly and negatively impacting society (Elkind, 1987, p. 4). Because early childhood school experiences have a permanent and profound impact on young children, shaping their brains and impacting the path of continued development (Grindal, Hinton, & Shonkoff, 2012), and because inappropriate school experiences at a young age can permanently damage children by negatively impacting self-esteem and blocking children’s natural strengths (Elkind, 1987), it is imperative that early childhood classroom teachers promote learning experiences that research demonstrates are most conducive to establishing a strong foundation.

Although there is persuasive research demonstrating the importance of play in early childhood education, there is a problematic trend in early childhood classrooms of increased academics and high-stakes test preparation, with less opportunity for play (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011). Sound research is not being applied to the classroom. Hirsh-Pasek, Golinkoff, Berk, & Singer (2009) called play the new “four letter word” (p. 3) and Elkind (1987) contended that there is a “boom in miseducation” in early childhood education (p. 9). Despite the fact that research reveals that playful learning is most appropriate and effective in the early childhood years, direct instruction pedagogy has supplanted playful learning, even in the earliest years of education, largely due to pressure to promote academic achievement (Reed, Hirsh-Pasek, & Golinkoff, 2012). As standardized tests become more commonplace in education, the effects trickle down to the earliest years of education, even in classrooms where testing does not transpire (Hirsh-Pasek, et al., 2009).

Although research reveals “Children taught in a more playful manner almost always achieve more than children who are subjected to more direct teaching methods” (Hirsh-Pasek et al., 2009, p. 54), it is commonplace to encounter early childhood classrooms (specifically and especially Pre-K through 2nd grade classrooms) that eliminate play almost entirely, replacing it with academics originally designed for older children, often in a developmentally inappropriate fashion (Hirsh-Pasek et al., 2009). Direct instruction displaces guided play. This tendency represents a worrisome movement because play is a vital component of effectual early childhood education programs (NAEYC, 2009). Guided play is an effective method of delivering content in early childhood education, and is more developmentally appropriate than direct

instruction, because it is child-centered and explorative in nature (Weisberg, Hirsh-Pasek, & Golinkoff, 2013). Research suggests that children who experience guided play consistently outperform those who experience direct-instruction (Weisberg et al., 2013a). Weisberg et al. (2013a) believe that this can be explained by the fact that guided play encourages children to be active and engaged in their learning process.

Teacher Training

Although teacher education programs instruct pre-service teachers in curriculum and pedagogy, it is valuable to differentiate between the two. Traditionally curriculum refers to what is actually taught, while pedagogy describes how the curriculum is delivered (Weisberg et al., 2013a). In many instances, the same early childhood content can be presented using different pedagogy so that identical topics can be delivered via direct instruction *or* guided play. Therefore, guided play, as a pedagogical tool, does not necessarily control what is taught, but *how* it is taught. Interestingly, research that seeks to compare the effectiveness of different early childhood curriculums does not find any single curriculum undoubtedly superior to the others, and Bowman et al. (2001) surmise, “The effect of the individual teacher may overwhelm the effect of the curriculum” (p. 184). The teacher can deliver the content through pedagogy in more effective and less effective ways. Weisberg et al., (2013a) categorize guided play as a “middle-ground pedagogical approach” (p. 105) because it involves learning objectives and incorporates teacher scaffolding, but remains child-centered. Furthermore, they view guided play as a “fertile pedagogy for optimizing learning” (Weisberg et al., 2013a, p. 109).

Because the teacher is the primary vehicle for pedagogy, it is critical for teachers to learn to effectively deliver early childhood curriculum (content) using guided play,

given that it is the most effective and developmentally appropriate method. This knowledge can be acquired initially through teacher education programs that prepare their teachers to be effective facilitators of guided play as a pedagogical method. Miller & Almon (2009) suggest that in order to halt the dangerous reduction of play in today's classrooms, we must provide "first-rate preparation that emphasizes the full development of the child and the importance of play, nurtures children's innate love of learning, and supports teachers' own capacities for creativity, autonomy, and integrity" (p. 60). Reversing the trend of play disappearance begins with how we prepare our teachers.

Unfortunately, many prospective teachers have limited opportunity to learn about or observe guided play beyond reading the textbook definition. This constraint may explain why Miller & Almon (2009) found that teachers are rarely capable of accurately and in detail articulating the relationship between playing and learning in the early childhood classroom, despite contending that play is important. Pre-service teachers engaging in fieldwork and completing their student-teaching have an inadequate opportunity to witness guided play in action. Frequently, cooperating teachers hosting pre-service teachers (as they participate in fieldwork and student-teaching) do not function as models for appropriate play in the classroom, even when they espouse play (Vera & Geneser, 2012). This phenomenon is attributed to the reality of today's early childhood classrooms where teachers frequently value play but experience tremendous challenges in implementing it due largely to an emphasis on testing, rigid schedules, and standards (Ranz-Smith, 2007). Vera and Geneser (2012) assert that despite research on the essential role of (guided) play in the educational experience of young children, "In the current educational environment, with its emphasis on standards-based curriculum and

high stakes testing, the concept of play has been relegated to a minor status” (p.5).

Therefore, pre-service teachers can complete their teacher education programs possessing only a very rudimentary sense of the pedagogy of guided play; lacking the experience of witnessing its implementation in classrooms and with students, and without the ability to articulate in detail the value of play. Miller & Almon (2009) found that 79% of kindergarten teachers in NYC spend time each day on test-preparation, and play is frequently completely eliminated or relegated to a minor and occasional activity.

Furthermore, on a typical school day, kindergarteners in NYC spend four to six times more of their day receiving literacy and math instruction and preparing for tests (or taking them) than engaged in play or choice time; this amounts to less than 30 minutes of play per day (Miller & Almon, 2009). Only 13% of NYC early childhood teachers reported being provided with adequate materials for dramatic play in their classrooms (Miller & Almon, 2009). In addition to lack of materials, the majority of NYC early childhood teachers recounted that the major barriers to implementing playful pedagogy in their classrooms were lack of time (given the expectations) and lack of support from administrators who did not value play as a learning tool (Miller & Almon, 2009).

Reversing the Disappearing-Play Trend

Because pre-service teachers quickly become new teachers, they have the potential to “bring a fresh perspective to the educational milieu, and new hot-off-the-research-press ideas, which have the potential to influence the status quo of current practice” (Vera & Geneser, 2012, p. 2). Therefore, developing pre-service teachers as effective facilitators of guided play as pedagogy has the potential to alter and reverse the current trend of developmentally inappropriate teaching (direct instruction) supplanting

play based pedagogy. In this way, these teachers will become vital change agents (Bodrova, 2008). But how can pre-service teachers understand the value of guided play and be prepared to effectively facilitate guided play in their future classrooms given the current climate of early childhood education, where they will have little exposure to guided play in action through fieldwork and student-teaching? Miller & Almon's (2009) study revealed just how much play is missing from early childhood classrooms in NYC and across the country, and the many barriers that exist for teachers in reversing this trend. Ranz-Smith (2007) suggested that the barriers to implementing guided play in the early childhood classroom as well as tangible solutions must be discussed in the college classroom. Prior research also indicated that inexperienced teachers benefit from discussion-case analysis to hone their teaching skills when opportunities to do so in the student-teaching classroom are limited (Pitton, 2010). Discussion-cases allow pre-service teachers to reflect on issues and strategize plans and solutions to problems before they confront them in their classroom practice (Pitton, 2010). Therefore, discussion-case analysis, where pre-service student-teachers are provided with the opportunity to discuss solutions for overcoming the impediments to implementing guided play in today's classroom, offers a potential tool for preparing teachers to become change agents in the field of early childhood education. This strategy corresponds to the recommendations of Vera and Geneser (2012), who after discovering through their research that early childhood pre-service teachers are concerned about implementing play in the classroom due to multiple perceived challenges and obstacles, suggested that "Teacher preparation programs must understand the constraints classroom teachers face to effectively prepare teachers for implementation of appropriate practices" (p. 11). It is unquestionably not too

late to reverse the current trend of direct instruction replacing play, for “In spite of dwindling time and materials for dramatic and imaginative play... children’s innate playfulness is irrepressible, like a plant pushing up through a crack in concrete... given the slightest opportunity, many children seize the moment” (Miller & Almon, 2009, p. 28).

Teacher Agency

Of course, because the trend in early childhood is the replacement of playful pedagogy with direct instruction, it may not be enough to simply teach pre-service teachers about the value of play and the methods for implementing guided play as a pedagogy, as revealed by the research. It also appears necessary to facilitate the creation of teachers who are agents of change. Cochran-Smith (1991) called this the facilitation of teachers who will “teach against the grain” (p. 280). Developmentally appropriate practice, including guided play in the early childhood classroom, “is often difficult to achieve in the prevailing climate of prescribed curricula, pacing guides, and other tools of standardization” (Paris & Lung, 2008, p. 253). Many new teachers leave their teacher preparation programs aware of the benefits of play, but they “succumb to prescriptions and pacing schedules that fail too many children” (Paris & Lung, 2008, p. 254).

Therefore, it becomes advantageous to prepare our teachers to exhibit teacher agency, specifically what Achinstein and Ogawa (2006) refer to as “principled resistance,” and define as “overt or covert acts that reject instructional policies, programs, or other efforts to control teachers’ work that undermine or contradict professional principles” (p. 32).

Acts of principled resistance allow teachers to defend their professional convictions through action despite a culture that seemingly requires the opposite (Paris & Lung,

2008). Teachers who do not implement developmentally appropriate practices despite a belief in the practice cited multiple impediments including administrators, colleagues, and parents (Jambunathan & Counselman, 2001; Lynch, 2015). Because play is not viewed as compatible with the prevailing climate of early childhood, impediments are to be expected. But what if teacher preparation programs facilitated the creation of teachers who are forces of agency skilled in principled resistance- teachers that are capable of promoting play despite the prevailing climate? It may be vital that new teachers become skilled in principled resistance if play is to remain a significant characteristic of early childhood classrooms given the current conditions. The discussion-case used in this study allows pre-service teachers to reflect on their role as agents of “principled resistance” (Achinstein & Ogawa, 2006, p. 32), defending their professional convictions, including the value of play as a pedagogy, despite a “prevailing climate” that encourages just the opposite (Paris & Lung, 2008, p. 253). Despite the predominant situation, there are many early childhood teachers who use developmentally appropriate practice and successfully employ guided play in their classrooms. It is therefore valuable to recognize how these successful teachers surmount the barriers. McMullen (1999) found that teachers who maintained high levels of DAP despite obstacles had strong beliefs in the practice, high internal locus of control, as well as self-efficacy. Similarly, Paris and Lung (2008) found that the qualities of autonomy, self-efficacy, intentionality, and reflectivity were salient characteristics of teachers who exhibited agency. Chen (2005) found that change agents not only influence their own classroom but those surrounding them, including other teachers and administrators. It is with these qualities in mind, this study’s treatment was designed, with the purpose of facilitating these attributes in pre-service teachers.

Problem Statement

Because previous research has determined that play is a vital component of developmentally appropriate early childhood education due to its significant role in children's learning and development (Bergen 2002; Branscombe, 1991; Copple & Bredekamp & 2009; Galeano, 2011; Goldhaber, 1994; Hall, 1991; Hamlin & Wisneski, 2012; Han, Moore, Vukelich, & Buell, 2010; Mielonen & Paterson, 2009; Morrow & Rand, 1991; Owocki, 1999; Pickett, 2005; Roskos & Christie, 2011; Sarama & Clements, 2009; Schrader, 1991; Siegler & Ramani, 2008), and because there is a well-recognized gap between what educational research suggests and what new teachers actually do (Broekkampa & van Hout-Woltersb, 2007; Rust, 2009; Qi & Levin, 2013), early childhood pre-service teachers will benefit from the opportunity to thoughtfully analyze the research on play and develop tactics for implementing evidenced based strategies effectively. Without such an understanding of the research and its application to the classroom, new teachers are more likely to rely on the teaching methods they witnessed as students themselves, even when they are contrary to what research indicates is best practice (Laframboise & Shea, 2009). Feiman-Nemser (2001) built upon Lortie's (as cited in Borg, 2004) idea of the apprenticeship of observation whereby pre-service teachers hold preconceptions about teaching based on their many years in school as students. She contends that new teachers characteristically revert to what they know from their own schooling and what they must do to survive instead of what they know to be best practice unless they receive sustained and serious opportunities for learning across their careers, and this learning begins during teacher-training (Feiman-Nemser, 2001).

Given the general trend towards direct instruction, traditional academics, and testing in early childhood with less opportunity for play (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011), the ability to analyze research on play and apply it to the classroom is a skill needed more urgently than ever. As Brashier and Norris (2008) contend, "Due to external pressures, teachers often conform to standards they realize are not the most developmentally appropriate for children, which results in the limiting of play..." (p. 30). Teacher education is a widely researched topic. However, the role of teacher education programs in preparing pre-service teachers to facilitate guided play in the classroom, specifically with the barriers created by the current anti-play climate, has not been studied in depth. Therefore, it was worthwhile to investigate how to effectively prepare teachers to analyze relevant research on play, and use the research to integrate meaningful play opportunities into their classrooms, acting as teacher agents who preserve best practice despite a climate beset with obstacles.

In order to reverse this trend of reduced play in early childhood classrooms, prospective teachers can be introduced to the purpose of play in early childhood education, exposed to the current research on the topic of play, and provided the opportunity to analyze this research and apply it to practice. Although research recognizes the importance of play in early childhood education as well the gap between this research and new teachers' practice, few studies have offered specific strategies for reducing the gap. This study addressed the problem of the research to practice gap for new teachers, specifically exploring a strategy for preparing teachers to analyze research on play and apply it to practice.

Once we understand how to more effectively endow new teachers with the ability to analyze and incorporate educational research in general, and research specifically on play, into their classrooms, we may begin to see a reversal of the persistent dissolution of play in early childhood education. This study will benefit those who prepare teachers through teacher education programs, potentially offering a new strategy for reducing the research to practice gap, and specifically, aligning the research on play with classroom practice, ultimately benefiting teachers and their students.

Purpose of the Study

The purpose of this sequential explanatory mixed method study was to examine the impact and experience of participating in facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. This mixed methods study used a design variant of the explanatory design– the participation selection model– where the quantitative information is used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano, 2007).

Quantitative survey data, once analyzed, was used to identify the participants for the qualitative interviews that took place in the second phase.

Participants were 17 early childhood pre-service students at Brooklyn College, in Brooklyn, New York, selected through purposive sampling. Three of the participants were graduate students and the other 14 were undergraduates. The treatment took place in the college classroom with the conviction that this context is an important setting for impacting beliefs and perspectives, which subsequently influence teacher behavior

(Stuart & Thurlow, 2000). This study may assist in increasing the amount of play in early childhood classrooms by providing new teachers with the occasion to analyze research on play and apply it to a discussion-case, impacting their knowledge and perceptions of play, as well as their confidence in providing play opportunities in the classroom. Furthermore, this study will contribute to the body of knowledge on strategies for teacher preparation programs to effectively prepare their students for their work as teachers.

Research Questions

Because this mixed-method study used the participation selection model of the explanatory design, the quantitative phase was used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano Clark, 2007). For this reason, the research questions were predominantly qualitative in nature, and also included a question that specifically addressed the mixing of data from the two strands (Creswell, 2014). This study sought to answer the following questions:

1. What are the self-reported DAP and DIP scores of early-childhood pre-service teachers in the early part of their student-teaching experience at Brooklyn College? (Quantitative)
2. How do pre-service teachers describe (using a graphic organizer) their proposed solution to the discussion-case detailing the disappearance of play in the classroom? (Qualitative)
3. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the experience of reading research on play collaboratively and applying it to a discussion-case? (Qualitative)
4. How do pre-service teachers (that score both the highest and lowest on a

measure of DAP belief) describe their views on play in the early childhood classroom, specifically the importance of play? (Qualitative)

5. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the impact of facilitated research analysis with discussion-case application on their belief in the importance of play in the early childhood classroom, as well as their self-confidence in providing developmentally appropriate play opportunities in the classroom (even in the face of realistic obstacles)? (Qualitative)
6. How does the qualitative data obtained in the second strand of this research help to elaborate upon and explain the data from the initial quantitative strand? (Mixed Methods)

Definition of Terms

The following terms are defined for this study's purpose.

Developmentally Appropriate Practice (DAP)

DAP is a teaching framework—grounded in research on how children develop and learn—designed to promote optimal learning and development (Copple & Bredekamp, 2009). DAP guidelines were developed and published by the National Association for the Education of Young Children (NAEYC) in 1987, and have been updated several times, most recently in 2009 (Bredekamp, 1987; Bredekamp & Copple, 1997; Copple & Bredekamp, 2009). Practices that are considered developmentally appropriate (DAP) are appropriate in three distinct ways. They are age appropriate; appropriate to the individual child; as well as socially and culturally appropriate (Copple & Bredekamp, 2009). DAP is child-centered and encourages active learning and the

construction of knowledge (Burts et al., 1992). Developmentally appropriateness was originally contrasted with Developmentally Inappropriate Practices (DIP) (Bredenkamp, 1987; Bredenkamp & Copple, 1997). The most recent DAP guidelines no longer include the term DIP and have replaced it with “in contrast” (Copple & Bredenkamp, 2009).

Although DIP is no longer used in the guidelines, the term DIP, or the word inappropriate to describe particular teacher behaviors, is still widely used in the field, as demonstrated by research published after 2009 (examples include: Abu-jaber, Al-shawareb& Gheith, 2010; Demircan, & Erden, 2015; Ernest, 2011; Han & Neuharth-Pritchett , 2010; Heisner & Lederberg, 2011; Kim, 2011; Liu & Lee, 2013; Rentzou & Sakellariou, 2011; Sakellariou & Konstantina Rentzou, 2012).

Direct Instruction

Direct instruction is an educational approach that emphasizes structured and academically-focused instruction. It is directed by the teacher and commonly involves drills, and independent seat-work (Reed et al., 2012). It is frequently considered the opposite of playful learning, and specifically free play, because it entails a teacher treating her students as passive recipients of the knowledge she imparts (Weisberg et al., 2013a).

Discussion-Case Analysis

Discussion-cases are scenarios and dilemmas, often based on actual experiences, which are used to facilitate discussion (Koc, 2012). They present an issue in detail, but not a solution, and therefore encourage dialogue among students and an opportunity to connect the scenarios and dilemmas to personal experience (Koc, 2012). Although there are a variety of formats for discussion-cases, in this study, the discussion-case is a

researcher-created vignette covering a specific scenario where play is eliminated from an early childhood classroom. The discussion-case is followed by open-ended questions for the participants to consider. In this study, discussion-case analysis refers to the process of examining the provided discussion-case after reading a piece of research, answering the questions posed at the end of the case, discussing these responses with peers during class, and finally completing a graphic organizer independently with a proposed solution to the discussion-case dilemma.

Early Childhood

Early childhood encompasses the period between birth and the age of eight (Copple & Bredekamp, 2009). In this study, the focus is on children in school settings.

Facilitated Research Analysis

In this study, participants are provided with a piece of research on the role of play in children's development as well as the disappearance of play. Participants are assigned the task of reading this research and analyzing it and then solving a discussion-case by applying the research. A variation of the jigsaw method was used (originally developed by Aronson, Blaney, Stephan, Sikes, & Snapp, 1978), allowing the research article to be divided into sections and assigning participants to read just a section of the research and be responsible for that piece in their small group.

Play

Play is notoriously a difficult concept to define because it is a “roomy subject, broad in human experience, rich and various over time and place” (Eberle, 2014, p. 214). In the context of school, play is typically referred to as playful learning, which is composed of both guided play and free play (Reed et al., 2012) and is best viewed as a

continuum with guided play on one end and free play on the other (Miller & Almon, 2009). Playful learning does not eliminate academic instruction, but rather teaches content, at least in part, through play activities that encourage learning (Hirsh-Pasek et al., 2009). Free play behaviors have been described as “fun, voluntary, flexible, have no extrinsic goals, involve the child’s active engagement, and often contain an element of make-believe” (Reed et al., 2012, p. 27). This dissertation focuses on guided play, which “actively engages children in pleasurable and seemingly spontaneous activities that encourage academic exploration and learning” (Hirsh-Pasek et al., 2009, p. 27).

Play is considered a developmentally appropriate learning strategy for young children (Copple & Bredekamp, 2009). The National Association for Education of Young Children (NAEYC), which is responsible for establishing the framework to guide early childhood educators, asserts in their position statement, “Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence” (NAEYC, 2009, Principle 10). Such research also prompted The United Nations to call play the right of every child (United Nations High Commissioner for Human Rights, 1989).

Theoretical Framework

This study used the theoretical lens of constructivism, specifically Vygotsky’s social constructivism, to frame the research on pre-service teachers’ application of research to a discussion-case. Constructivism guides the study’s treatment (cooperative research analysis with discussion-case application), allowing participants to experience constructivism from the perspective of the learner. Furthermore, the actual research on play that was analyzed and applied to a discussion-case was best understood through a

social constructivism framework because play in the classroom is appreciated as a constructivist activity.

Social Constructivism

Vygotsky's (1930;1980) social constructivism, which propounds that social interactions are important to higher mental function (Bodrova, 1997), serves as the framework for this study. Accordingly, "we actively construct our knowledge and do not passively receive it from experience or heredity" (Hausfather, 2001, p. 15). Furthermore, learning is a social process and requires integration, inquiry, and community (Beck & Kosnik, 2006). Additionally, social constructivism maintains that problem-solving should be collaborative in nature, allowing for shared reasoning and problem solving (Hausfather, 2001). Constructivism implies that knowledge "cannot be imposed or transferred intact from the mind of one knower to the mind of another" (Karagiorgi & Symeou, 2005, p. 18). DAP is actually built upon the ideas of constructivism. In the NAEYC (2009) position statement, it is explained that, "young children construct their knowledge and understanding of the world in the course of their own experiences, as well as from teachers, family members, peers and older children, and from books and other media" (p. 14).

Vygotsky's zone of proximal development (ZPD) is a central element of social constructivism. Vygotsky (1930; 1980) defined the ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). In other words, children can do more through exchanges with others than they are capable of independently. The NAEYC

(2009) position statement reflects Vygotsky's theory when it states, "Development and learning advance when children are challenged to achieve at a level just beyond their current mastery" (p. 3).

Social constructivism guided this study's treatment, allowing the researcher to model constructivism as a teaching pedagogy for the participants. Pre-service teachers worked collaboratively to analyze play research, using a variation of the jigsaw strategy, and applied the knowledge gained from the research to a discussion-case with the assumption that such peer interaction facilitated higher mental function. Furthermore, ZPD is useful in considering the role of the researcher/instructor in this study as a facilitator, as well as participants' peers, allowing students to engage in a level of research analysis and discussion that they would be unable to complete independently, without the scaffolding provided by peers (other participants) and the instructor (the researcher) (Bodrova, 1997).

Therefore, while participating in this study, participants experienced constructivism from the perspective of learners, and witnessed their instructor (the researcher) modeling this teaching framework. If pre-service teachers are going to become teachers that successfully utilize a constructivist framework with their own students, they should experience the framework as a learner (Beck & Kosnik, 2006; Hausfather, 1996). Research indicates that constructivist classrooms are not the norm in higher-education, despite the evidence that they are effective (Fear et al., 2003). A social constructivist framework allowed participants to be exposed to a structure, through curriculum, which aligned with the values espoused by the institution preparing future-

teachers (Beck & Kosnik, 2006), possibly assisting pre-service teachers in using the framework in their own (future) teaching (Cunningham, 2014).

Social Constructivism also guided this research in a second fashion. The topic of play is best understood through a constructivist framework because children's play allows for the active construction of knowledge (NAEYC, 2009). The selected research on play discusses the construction of knowledge through play, although Vygotsky is not mentioned specifically. Vygotsky believed that play was a highly important and influential factor in a child's development" (Vygotsky, 1930; 1980). He explained, "As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development" (Vygotsky, 1930; 1980, p. 102). Thus, play affords tremendous opportunities for growth and development. When children play with their peers, and under the gentle guidance of their teachers, they can demonstrate skills they would not be able to exhibit unaided. Vygotsky (1930; 1980) noted, "In play, a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself" (p. 102). Vygotsky (1930; 1978) asserted that play is "a leading factor in development" of children and "contains all developmental tendencies in a condensed form and is itself a major source of development." Therefore, the research on play that participants analyzed and applied to a discussion-case is best appreciated and grasped through the framework of constructivism.

Significance

This study was conducted to better understand the experience of early-childhood pre-service teachers who applied selected research on play in the classroom to a researcher-created discussion-case. This study may have significance in changing and

shaping the preparation of pre-service teachers, specifically in the area of pedagogy; facilitating the creation of teacher-leaders who impact policy; contributing to the research related to preparing pre-service teachers to implement DAP, even in the face of significant challenges (exhibiting teacher agency), and acting as a springboard for further research by posing important questions that have not been asked and addressed previously.

Practice

With the increased emphasis on high-stakes testing, early childhood education has become increasingly academic with less opportunity for play. This is a problematic trend because play is a vital component of effective early childhood education programs (Brashier & Norris, 2008; Hirsh-Pasek, et al., 2009; Nicolopoulou, 2011; Reed et. al., 2012). Once we understand how to equip new teachers with the ability to analyze and incorporate educational research, and research specifically on play, into their classrooms, we may begin to see a reversal of the trend towards a persistent dissolution of play in early childhood education. This study benefits those who prepare teachers through teacher education programs, contributing a proactive strategy for reducing the research to practice gap, and specifically aligning the research on play with classroom practice, ultimately benefiting new teachers and their students. If the approach of research analysis with discussion-case application can support pre-service teachers in building their capabilities in and confidence with successfully facilitating and scaffolding play experiences in early childhood classrooms, teacher-preparation programs can use such a teaching-strategy proactively to help their students become more prepared teachers. With play hurriedly disappearing from early childhood classrooms, thereby limiting the

opportunity for pre-service teachers to observe its benefits, teachers must become better prepared to understand the value of play and learn to effectively facilitate play (despite the difficulties in doing so) during their teacher education programs. This study indicates that through discussion-cases, teachers may develop the knowledge and confidence to serve a vital role in reversing the trend of play-disappearance (Bredenkamp, 2004).

Policy

Paris & Lung (2008) suggest that those who prepare teachers should facilitate the creation of teachers who can “sustain an agentic stance in the face of challenge” (p. 266). If teacher preparation programs can use the strategy of research analysis with discussion-case application to facilitate the creation of teachers who understand the value of play and are primed to successfully implement guided play as pedagogy, new teachers can change the current culture of early childhood teaching and impact policy; such teachers will be acting as change agents. New teachers will be prepared to lead by example and advocate for change. Advocacy can impact policy that currently emphasizes test preparation and traditional academics in the early childhood setting. Teachers with an augmented understanding of the role and value of play in early childhood education, as well as the capacity to overcome the obstacles associated with the implementation of the pedagogy, will advocate for play in the classroom. They become advocates for policy that opposes and eventually reverses the current trend of play reduction. In this way, teachers become vital change agents (Bodrova, 2008). Teacher-leaders/advocates can lead an important movement towards developmentally appropriate play-based learning in early childhood classrooms, influencing not only their classrooms, schools, and districts, but state and federal early childhood education policy. Such policy shifts will ultimately benefit the

young children in early childhood school settings. Those who prepare teachers can use the strategy of research analysis with discussion-case application “to support novice teachers to take an agentic stance on behalf of young children” (Paris & Lung, 2008, p. 266)

Research

Teacher education is a widely researched topic. However, the role of teacher education programs in preparing pre-service teachers to facilitate guided play in the classroom, specifically with the barriers created by the current anti-play climate, has not been studied in depth. Therefore, this study offered something new in the area of research. This study explored pre-service teachers’ perceptions around play and the experience of analyzing research on play and using it to solve a realistic discussion-case about the disappearance of play. Perceptions are important because teachers’ beliefs impact their behavior in the classroom (Stuart & Thurlow, 2000). Vartuli (2005) calls beliefs “the heart of teaching” (p. 76). Although increasing knowledge and altering perceptions are important, this study does not explore another important variable—changes in pre-service teachers’ actual behavior as related to play. Because the participants found the experience of analyzing research and applying it to a discussion to be beneficial, it will be advantageous to conduct a follow-up study examining whether such changes in belief correlate with changes in actual practice/behavior. This study was just an initial step, and follow-up studies should determine if teaching practice is impacted, as measured through observation.

Limitations and Delimitations

As with all research, this study was limited in a few ways. The following section outlines these limitations and the research strategies used to ameliorate problems that may arise as a result of these limitations.

This study is limited to participants in one department in just one teacher education program. Pre-service students in other programs with different requirements, located in another part of the country, or situated in a private university setting, for example, might react differently to the treatment. However, the results remain relevant and can be used to influence the approach to teacher education at Brooklyn College. I purposely selected these research methods to gain a detailed and nuanced understanding of these participants, and not in order to generalize the findings. The study allowed for this in-depth exploration of participants and can serve as a springboard for additional research. Future studies might explore whether similar results are obtained in other contexts. It would be interesting to explore this treatment in a different university setting and compare the results to those obtained in this study with participants from only the early childhood department at Brooklyn College. In addition, it would be worthwhile to explore the impact of this treatment in a professional development setting, reaching already practicing teachers, who might benefit from a better understanding of the research on play and how to apply this research to their own contexts.

Participants were selected through purposeful sampling, making it is difficult to generalize beyond these students, impacting the external validity of the findings (Creswell & Plano Clark, 2011). However, because this study favored the qualitative strand and was primarily qualitative in nature, non-probability sampling was appropriate.

Generally, the goal of qualitative research is not objectivity or generalizability, but rather the detailed exploration of a specific group or phenomenon. In this research, purposeful sampling allowed for the detailed exploration of the experience and perspective of pre-service student-teachers undergoing a very specific experience. Furthermore, the sequential explanatory design of this study allowed for an in-depth exploration of the quantitative data during the qualitative strand.

The quantitative survey and qualitative interview questions in this study largely asked participants about attitudes and beliefs, which are not necessarily precise or consistent; therefore, measurement error is a concern and potential limitation of the chosen instruments (Salant & Dillman, 1994). However, learning about students' beliefs and intentions is an initial and important step before examining actual changes in behavior. The use of open-ended interview questions allowed participants to explain themselves fully and to ask clarifying questions as needed, which led to a detailed understanding of participants' perspectives.

The findings only indicated changes in student-teachers' perspectives on and confidence with implementing play experiences in the classroom. This study does not explore whether the treatment impacts the actual behavior of participants. For future research, it will be important to ask: Does research analysis with discussion-case application impact the way pre-service teachers implement and support play experiences in their student-teaching placement and future classrooms? Such research would look beyond espoused theories and explore theories-in-use.

A final limitation of this study occurred because of the dual role of the researcher as both researcher and the participants' instructor. It is plausible that participants'

responses were impacted by the relationship (Hammack, 1997). Furthermore, even if participants' responses were not altered by the relationship with the researcher, there is the potential for bias in interpreting the qualitative data because of the relationship between the researcher and the participants. Thick and rich descriptions are provided to establish accuracy. Triangulation using multiple researchers would be appropriate and worthwhile in any follow-up research. A follow-up study where interviews are conducted and analyzed by someone other than the participants' instructor might be helpful in investigating and clarifying the value of the treatment experience.

Organization of the Dissertation

With the philosophical worldview of pragmatism guides the research, this mixed method study uses a pluralistic approach to elucidate the problem of disappearing play opportunities in the early childhood classroom, and to explore a potential strategy for combatting the issue (Creswell, 2014). This dissertation is divided into six chapters. Chapter one provides the overall context of the study. Chapter two presents literature germane to the problem at the heart of this study, but in an abridged manner. Chapter three discusses the methodology. Chapter four will present the overall findings of this research. Chapters five and six contain two distinct journal articles that focus on significant findings and will be submitted for publication in peer-reviewed journals.

Chapter 2

Literature Review

The purpose of chapter two is to explore the literature related to my topic to better situate this study in its proper context. The chapter provides an abridged literature review because this dissertation includes two articles with literature reviews. This abridged literature review is divided into multiple sections and includes: the general research to practice gap in the field of education; play's role in the early childhood classroom; the trend of play disappearing from the early childhood classroom; and the potential of teacher agents and teacher preparation programs in reversing this trend. Finally, the reviewed research is used to explain why this study is warranted, and how graphic organizers and discussion-cases will be used. Chapter two also includes a description of the study's theoretical framework.

Research to Practice Gap in Education

There is a well-documented research to practice gap in the field of education (Broekkampa & Van Hout-Woltersb, 2007; Rust, 2009; Qi & Levin, 2013). Both researchers and practitioners acknowledge the existence of such a chasm and the need to improve the use of research supported practices in the classroom (Broekkampa & Van Hout-Woltersb, 2007). Because teachers frequently have difficulty reading, analyzing, and applying research to their practice, powerful and relevant research frequently never reaches the intended audience and does not have the ideal and intended impact on classroom practices (Eckhoff, 2011; Ranz-Smith, 2012; Zeuli, 1992). Many teachers experience difficulty comprehending and analyzing research (Zeuli, 1992). Furthermore, many teachers believe that research is neither conclusive nor practical and therefore

choose not to make use of it (Broekkampa & Van Hout-Woltersb, 2007). This is troublesome because research is a valuable source of professional development for teachers (Zeuli, 1992). Teachers may simply wish to ascertain teaching strategies and methods quickly from research, but may not be capable of or interested in analyzing the main points of research or the supporting evidence (Zeuli, 1992). Because most new teachers do not have extensive experience analyzing educational research that is relevant to their practice, it is not surprising that they do not possess proficiency analyzing research specifically on play and applying it effectively to their practice (Eckhoff, 2011; Ranz-Smith, 2012). Given the general trend towards direct instruction, traditional academics, and testing in early childhood with less opportunity for play (Brashier & Norris, 2008; Nicolopoulou, 2011), early childhood educators will benefit from not only learning to understand and thoughtfully analyze the research on play, but also learning to navigate delicate terrain when implementing it. In many cases, teachers will need to work actively against the current trends and political imperatives while implementing playful pedagogy. In this way, early childhood teachers may become change agents when applying research to practice (Paris & Lung, 2008).

Play in the Early Childhood Classroom

Play can be a difficult concept to define because “it is difficult to render dynamic relationships into language” (Eberle, 2014, p. 231). However, in the context of school, play is typically referred to as playful learning, which encompasses guided play and free play (Reed et al., 2012). These two types of play are positioned along a continuum with guided play on one end and free play on the other (Miller & Almon, 2009). Playful learning does not eliminate academic instruction, but rather teaches content, at least in

part, through play activities that encourage learning (Hirsh-Pasek et al., 2009). Free play behaviors have been described as “fun, voluntary, flexible, have no extrinsic goals, involve the child’s active engagement, and often contain an element of make-believe” (Reed et al., 2012, p. 27). Guided play “actively engages children in pleasurable and seemingly spontaneous activities that encourage academic exploration and learning” (Hirsh-Pasek et al., 2009, p. 27). Although both components of playful learning are important for children’s learning and development, this review of the literature focuses on guided play because of the great responsibility placed on a teacher when planning for and facilitating such play opportunities. Guided play can be considered the midway point between direct instruction and free play because the teacher has a learning goal and scaffolds the environment and children while children possess control over their learning experience (Weisberg et al., 2013a). Effective guided play requires teachers to scaffold the play experience and create an environment conducive to learning through play. The position statement of NAEYC (2009) promotes the role adults should serve in children’s play, when appropriate explaining, “Adults can use proven methods to promote children’s extended engagement in make-believe play as well as in games with rules and other kinds of high-level play” (p. 15)

Developmentally Appropriate Practice

Play is considered a Developmentally Appropriate Practice (DAP) in early childhood education (Copple & Bredekamp, 2009). DAP is a research-based framework for teaching, which is intended to promote children’s development and learning (Copple & Bredekamp, 2009). DAP can be measured along a scale from the most Developmentally Inappropriate Practices (DIP) to the most DAP practices, creating a

DIP/DAP continuum (Ernest, 2001; Hart, Burts, & Charlesworth, 1997). In order for DAP to be implemented effectively, a teacher must understand both the children she teaches and the teaching environment, and consider how these variables impact curriculum (Copple & Bredekamp, 2009). Furthermore, when DAP is implemented in an early childhood classroom, play is an integral part of the day, and “rather than detracting from academic learning, play appears to support the abilities that underlie such learning and thus to promote school success” (Copple & Bredekamp, 2009, p. 15). Neuroscience research supports this assertion, indicating that children’s brains require engagement in real-life, hands-on, and meaningful experiences for learning to occur; play serves an important role in the development of the brain itself (Brown & Vaughan, 2009; Rushton, 2011; Rushton & Larkin, 2001; Shonkoff & Phillips, 2000). Educational researchers such as Owocki (1999) concur, proclaiming, “In a developmentally appropriate classroom, play time is teaching time” (p. 29).

False Play-Learn Dichotomy

Despite the fact that play is considered DAP in early childhood classrooms and advocated by key educational organizations (such as NAEYC, as discussed in chapter one), the research literature reveals a tendency to create a false dichotomy between learning and playing. Because play is DAP, play should not be viewed as being in opposition to work. Instead, play *is* the developmentally appropriate work of children. Vygotsky (1930; 1980) contended, “It is incorrect to conceive of play as activity without purpose” (p. 103). It is important for teachers to recognize that learning/working and playing are *not* mutually exclusive, and that, in fact, a great deal of learning occurs through play (Cooney, Gupton, & O’Laughlin, 2000). Hirsh-Pasek et al. (2009) proposed

that there is a false dichotomy between playing and learning within the field of early education and in the larger society, and this polarity is counterproductive. The education of children should look like, and take place through, play “with children delighting in acquiring knowledge and skills in ways that make them feel competent and capable” (Hirsh-Pasek et al., 2009, p. 16). As Vygotsky (1930; 1980) explained, “Though the play-development relationship can be compared to the instruction-development relationship, play provides a much wider background for changes in needs and consciousness” (p. 102). Play is a more powerful learning tool than direct instruction when teachers understand how to use it. The dilemma for teachers should not be to play *or* to learn, because early childhood education should encompass playing *and* learning simultaneously (Snow, 2012).

Play and Children’s Learning and Development

There is a great deal of research documenting the importance of play in child development. Play serves to enhance children’s academic, social, and emotional skills, and engages and motivates children in a manner not achieved by didactic learning (Hirsh-Pasek et al., 2009). Play, especially when teachers scaffold and facilitate it, serves a significant role in developing children’s cognitive and “academic” skills, including building literacy skills (Bergen 2002; Branscombe, 1991; Eberle, 2011; Galeano, 2011; Hall, 1991; Han et al., 2010; Mielonen & Paterson, 2009; Morrow & Rand, 1991; Owocki, 1999; Pickett, 2005; Roskos & Christie, 2011; Schrader, 1991); and building math and science skills (Bergen, 2009; Goldhaber, 1994; Hamlin & Wisneski, 2012; Sarama & Clements, 2009; Siegler & Ramani, 2008). Play serves an important role in building skills important to working cooperatively with others in socially appropriate

ways (Eberle, 2011; Gilliam, 2015). Play also helps children develop learning behaviors, executive functioning skills, working memory, problem-solving abilities, and flexibility of thought; these skills, while important on their own, also improve outcomes in academic areas such as math and literacy (Diamond, Barnett, Thomas & Munro, 2007; Ginsburg, 2007).

Guided Play and Literacy

Playful learning in general, and guided play specifically, does not eliminate academic instruction, but rather teaches content, at least in part, through play activities that encourage learning (Hirsh-Pasek et al., 2009). Guided play is especially valuable approach to foster literacy in the early childhood classroom (Fisher, Hirsh-Pasek, Golinkoff, Singer, & Berk, 2010). The language of children improves and expands through playful interactions with adults and peers (Hirsh-Pasek, Golinkoff, & Eyer, 2003; Zigler & Bishop-Josef, 2004). Research indicates that play fosters literacy skills in children by creating a setting where literacy related skills and activities are promoted; by building a connection between oral and written expression; and by providing greater opportunities for teachers to teach literacy (Roskos & Christie, 2004). Children engaged in guided play demonstrate improved language skills (Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013b). Guided play where adults scaffold the learning is ideal for developing language skills (Weisberg et al., 2013b). Weisberg et al. (2013b) suggested that scaffolded and teacher-supported play should replace much of the drill and direct instruction typical of early childhood classrooms today

Massey (2012) found that by connecting classroom reading with guided play, students experienced enhanced vocabulary and language skills. Similarly, Nicolopoulou,

McDowell, and Brockmeyer (2006) found that children who acted out their stories– a playful and guided dramatic activity– created more complex written pieces. Han et al. (2010) found that when play was added, vocabulary instruction in a preschool classroom was more effective. They tested two different vocabulary-teaching strategies; one group of children received explicit vocabulary instruction while the other group received shortened explicit vocabulary instruction and a play session. Participants who received explicit instruction with play demonstrated greater growth in receptive and expressive vocabulary measures than the children who received just explicit vocabulary instruction (Han et al., 2010). It appears that less direct instruction was actually more effective in building this literacy skill when guided play was added to the program. These studies underscore the magnitude of the role of the teacher in using play to support literacy. Play alone will not necessarily lead to literacy growth in children; the teacher serves an essential function. Teachers teach concepts and skills through guided play in a context where the children become actively engaged in the subject matter and the teacher responds in order to facilitate and enrich knowledge acquisition (Fisher et al., 2010).

Guided Play and Mathematics and Science

Guided play opportunities also serve to help develop children’s mathematical and scientific thinking and skills (Bergen, 2009; Goldhaber, 1994; Hamlin & Wisneski, 2012; Sarama & Clements, 2009; Siegler & Ramani, 2008). Young children actually naturally incorporate a great deal of mathematics into their play (Ginsburg, Lee, & Boyd, 2008; Sarama & Clements, 2009; Seo & Ginsbug, 2004). With guided play, teachers can foster and extend these moments into guided play opportunities to encourage acquisition of mathematical understanding (Ginsburg et al., 2008). A joint position statement of the

National Association for the Education of Young Children (NAEYC) and the National Council of Teachers of Mathematics (NCTM) (NAEYC/NCTM, 2010) explains this tenet of early childhood education this way:

Play does not guarantee mathematical development, but it offers rich possibilities. Significant benefits are more likely when teachers follow up by engaging children in reflecting on and representing the mathematical ideas that have emerged in their play. Teachers enhance children's mathematics learning when they ask questions that provoke clarifications, extensions, and development of new understandings.

Sarama & Clements (2009) argue that because young children engage in play, which naturally incorporates mathematics, the teacher should become skilled at using these natural opportunities to generate even more meaningful experiences. They explain, "Such a knowledgeable adult helps children transform foundational play into mathematical knowledge and abilities. Children benefit from richer play experiences, preparation for learning later mathematics, and new ways to understand their world" (p. 333).

Even a water table, a common site in many early childhood classrooms, can lead to scientific and mathematical investigations under the guidance of a supportive teacher (Gross, 2012). As Gross (2012) explains, "Play IS investigation. Water is the source of life and, as such, can provide almost unlimited learning." With guided play in general, the key is the presentation of appropriate materials and a teacher who can facilitate learning through the activity.

Block play is an area of early childhood education that has been studied extensively and shown to assist students in developing mathematical understandings

(Hirsch, 1996; Miyakawa, Kamii, & Nagahiro, 2005; Ness & Faranga, 2007). Ramani, Zippert, Schweitzer, and Pan (2014) examined a block building classroom activity where the teacher utilized guided play. They found that guided play, which encouraged cooperative block building, helped children use spatial vocabulary, providing an opportunity for children to practice and expand their mathematical language and skills. Ferrara, Hirsh-Pasek, Newcombe, Golinkoff, and Lam (2011) also explored block play and children's developing spatial vocabulary. They too discovered that guided play enhanced children's production of spatial words.

The Teacher's Role

Research indicates that teachers play a central role in facilitating appropriate play opportunities for students (Bodrova & Leong, 2012; Hamlin, & Wisneski, 2012; Mielonen & Paterson, 2009; Sarama & Clements, 2009; Test, Cunningham, & Lee, 2010; Weisberg et al., 2013b). Guided play demands a lot of a teacher because it is "subtly directive, embedding new learning into meaningful contexts that correspond with children's prior knowledge" (Hirsh-Pasek et al., 2009, p. 27). A teacher facilitates guided play in two distinctive ways, through the act of scaffolding and through the creation of a suitable environment. During guided play, the teacher's involvement falls along a continuum, with varying degrees of direct participation in the play (scaffolding) and environmental set-up (Fisher et al., 2010). Fisher et al. (2010) present a vibrant example illustrating both components of a teacher's role. Instead of direct instruction and drill in the teaching of shapes to young children, a teacher introduces real-life shapes into the classroom and allows the children explore them freely. The teacher encourages the

children to find shapes through a playful scavenger-hunt like activity, and simultaneously asks the children questions, allowing them to describe and compare the shapes.

The term scaffolding is taken from the world of construction where a scaffold is created and used temporarily to help with the creating or modifying of another structure (van de Pol, Volman, & Beishuizen, 2010). Scaffolding is used in education to refer to the support provided by someone (usually a teacher) that allows a child to complete a task that he or she would not be able to complete independently (van de Pol et al., 2010). Bodrova and Leong (2012) found that fully developed and beneficial play requires adult support, largely through scaffolding. How a teacher scaffolds varies based on the context (van de Pol et al., 2010). Fisher et al. (2010) describe scaffolding as subtle interventions including asking questions and making suggestions. In addition, research indicates that teachers can use other students to scaffold play (Mielonen & Paterson, 2009). A component of scaffolding requires teachers to use observation to inform play opportunities and involvement (Sarama and Clements, 2009). Hamlin & Wisneski (2012) discovered that it was important for teachers to carefully consider the questions posed before, during, and after exploratory play to effectively scaffold the experience. For example, Bodrova and Leong (2012) describe a guided play activity where children play in a pretend restaurant. As the children play, the teacher becomes a customer in the restaurant and asks questions about the restaurant's hours and the availability of a reservation—introducing new vocabulary in context. In addition, scaffolding requires teachers to monitor children's language so "it is used in the service of play" (Bodrova & Leong, 2012). Bodrova and Leong (2012) provided an example of this where children might use a prop such as a paper plate initially as a pizza and later as a fire truck's

steering wheel. The teacher altered her language to match the prop's purpose in this scenario, helping students grasp the symbolic component of language (Bodorva & Leong, 2012). Scaffolding is a fundamental element of using guided play to enrich knowledge acquisition because the teacher uses this strategy to teach the desired concepts and skills (Fisher et al., 2010).

An essential component of effectively facilitating play is creating an appropriate environment for the intended play to thrive. For example, teachers provide carefully selected literacy materials, and children use them independently (Fisher et al., 2010). Sarama and Clements (2009) suggest multiple ways that teachers can effectively support an atmosphere of play, including creating a schedule conducive to play and supplying appropriate materials. It is vital for teachers to carefully consider the materials they provide during guided play (Hamlin & Wisneski, 2012). Morrow & Rand (1991) explored physical changes in the environment (classroom) that positively impacted the literacy activity in that classroom, including creating a space that allows children to move freely. Neuman and Roskos (1992) demonstrated that classrooms with carefully selected literacy related materials (props) increased children's literacy dramatically. Therefore, an effective teacher must consider the environment a vital ingredient in the creating of a classroom that encourages productive guided play.

The Disappearance of Play from Early Childhood Classrooms

Despite the research on the benefits of play, and the research on the most effective way for teachers to facilitate play, play is rapidly disappearing from early childhood classrooms (Brashier & Norris, 2008; Nicolopoulou, 2011). Brashier and Norris (2008) contend, "Due to external pressures, teachers often conform to standards they realize are

not the most developmentally appropriate for children, which results in the limiting of play" (p. 30). In many classrooms, learning through play is being replaced by direct instruction, which can lead to short term gains, but these advances are not as profound or lasting, as compared to learning gains through playful learning (Alifieri, Brooks, Aldrich, & Tennenbaum, 2010; Almon & Miller, 2011).

On a typical school day, kindergarteners spend four to six times more of their day receiving literacy and math instruction and preparing for tests (or taking them) than engaged in free play or choice time; this amounts to less than 30 minutes of play per day (Miller & Almon, 2009). Furthermore, Miller and Almon (2009) found that 79% of kindergarten teachers in New York spent time each day on test-preparation. Perhaps not surprisingly, it is commonplace to find today's newspapers filled with stories about the new conditions of early childhood classrooms. For example, a recent piece featured the cancellation of an annual kindergarten play because the school believed that the practice and performance time was better spent preparing the children to be "college and career ready" (Strauss, 2014a). The Washington Post ran a story they entitled "Sweat Shop Kindergartens: It's Maddening" (Strauss, 2014b), highlighting the state of kindergarten today. Recently, The New Yorker featured a cartoon depicting a Pre-Kindergarten classroom where the young children are seated on a rug in front of their teacher who times them as they work, stating, "Time's up. Crayons down." (Carter, 2015). As Hirsh-Pasek et al. (2009) explain, "At a time when children should be experimenting with making shapes in clay and building towers... children are drilled and practiced like parrots in a circus act" (p. 5). Test preparation has become a dominant force in early childhood classrooms, shifting practice away from what is developmentally appropriate.

Causes of the Disappearance of Play

Given the research on the benefits of playful learning, why would play be rapidly disappearing from early childhood classrooms? Experts attribute the trend to two distinct sources. First, there is a general misconception about brain development that leads many parents, and even those in the field, to feel that young children must learn academics at an early age if they are going to be successful in school in their later years (Hirsh-Pasek et al., 2009; Reed et al., 2012). Unfortunately, even well informed educators frequently feel pressured to acquiesce to parents' requests, even when they do not agree (Hirsh-Pasek et al., 2009; Reed et al., 2012). However, the pressure is not exclusively attributed to parents (Lynch, 2015). In a recent study, Lynch (2015) found that kindergarten teachers, even those that wanted to facilitate and implement play-based learning in their classrooms, felt pressure to reduce or eliminate play from administrators, describing themselves as "battling their administrations" (p. 361). Lynch (2015) also discovered that kindergarten teachers felt the pressure to eliminate or reduce play in the classroom from fellow teachers, describing this as "feeling they are looked down upon by other teachers in their schools" (p. 361).

Furthermore, the national focus on the achievement gap has led to the demand for increased academics and less play in the early childhood classroom (Hirsh-Pasek et al., 2009; Reed et al., 2012). The achievement gap, in part, refers to the fact that children from environments that are categorized as underprivileged are consistently less prepared for school than their middle-class counterparts, and these disparities in academic success continue (Hirsh-Pasek et al., 2009). Because of the recognized achievement gap, there is a desire to actively and immediately address it, and the reduction of play to accommodate

the increase of direct-instruction in early-childhood classrooms represents a tangible shift meant to reduce and eventually eliminate this gap (Hirsh-Pasek et al.; Reed et al., 2012). However, research has revealed that the curriculum goals that will effectively reduce the achievement gap can be met more successfully through playful pedagogy than through direct instruction. In spite of this research, many find the idea of play as a strategy for reducing the achievement gap incomprehensible (Jones & Reynolds, 2011). For example, Alifieri et al. (2010) review of studies that compared direct instruction to discovery-based approaches revealed that greater learning emerged with a teacher-enhanced discovery (playful) approach. Therefore, in a well-intentioned attempt to lessen the achievement gap, children will actually be learning less as play is continually removed from the classroom and replaced by direct instruction (Jones & Reynolds, 2011). Based on an effort to provide children with strong academic proficiencies, especially in the areas of literacy and mathematics, and with the belief that play will obstruct such a goal but didactic learning will lead to stronger academic outcomes, play is becoming less commonplace in classrooms (Hirsh-Pasek et al., 2009). It is advantageous to explore the role of teachers in shifting this trend.

Teachers as Change Agents

Early-childhood teachers are commonly aware that this shift away from play is developmentally inappropriate, but they feel great pressure to bend to the trend (Brashier & Norris, 2008; Lynch, 2015; Parker & Neuharth-Pritchett, 2006). Brashier and Norris (2008) found that novice teachers frequently believe they can not use what they have learned in their preparation programs and what they feel is developmentally appropriate because of external pressures such as rigid constraints in their schools, including

curriculum requirement, state requirements, test preparation requirements, and testing requirements (Brashier and Norris, 2008). Nearly half of the new teachers Brashier and Norris (2008) surveyed reported feeling compelled to create a classroom environment that they did not deem developmentally appropriate. Evidently, early childhood teachers face pressures from multiple sources (parents, administrators, mandates, etc.), and it is these demands that promote the vanishing of play in their classrooms. As Ranz-Smith (2012) described, “Reconciling the research affirming the importance of play with the realities of today’s demands for academic performance is a daunting challenge, but one for which early childhood practitioners need to be equipped” (p. 85). Accordingly, a vital and appropriate area of research is in facilitation and creation of teachers ready to present such a strong defense. Teachers can learn to teach “against the grain” (Cochran-Smith, 1991, p. 280). They can grow to be agents of change for play-based learning. By applying research (on play) to their practice in the face of an environment not favorable to this action, teachers will be exhibiting what Achinstein and Ogawa (2006) termed “principled resistance” (p. 32). As Golinkoff, Hirsh-Pasek, Berk, and Singer (2009) expounded, their research on playful learning must be applied to today’s educational climate where despite (their) research, play is swiftly disappearing from early childhood classrooms.

Qualities of Change Agents

Clearly, regardless of the contemporary climate imbued with numerous barriers, there are early childhood teachers who demonstrate high levels of DAP in their classrooms and implement guided play. McMullen (1999) found that teachers who preserved DAP in their classrooms despite hurdles had formidable beliefs in the practice as well as significant self-efficacy. Teachers who “walked the walk” of DAP and not just

“talked the talk,” as McMullen (1999) described it, were firm believers in the practice. In fact, resolute belief in the practice was the greatest predictor of teacher agency. Similarly, Paris and Lung (2008) found that autonomy, self-efficacy, intentionality, and reflectivity were significant attributes of teachers who exhibited agency. Teachers who acted as change agents, even when challenged, were described as possessing autonomy as revealed by their behavior as “active decision-makers who are deliberative in their decision-making, weighing their options, considering but not immediately deferring to others when they disagree.” (p. 260). In this way, it is “professional knowledge and experience and her own deeply held beliefs about what [is] right and good and important” that guide acts of agency in spite of challenges (Paris & Lung, 2008, p. 261).

Furthermore, new teachers with agency exhibited self-efficacy by believing in themselves as capable of effectual teaching (Paris & Lung, 2008). Paris and Lung (2008) found that teachers with agency were capable of facing challenges and hurdles “with a strong expectation that they can be effective teachers” (p. 263). Similarly, McMullen’s (1999) data revealed that teachers who adhered to DAP were more efficacious about the impact of their teaching. Moreover, teachers with agency acted with intentionality (Paris & Lung, 2008). They maintained classrooms aligned with their “deeply held convictions” despite the challenges (p. 264). As Bandura (1993) explained, “Among the mechanisms of agency, none is more central or pervasive than people’s beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives (p. 118).

Additionally, teachers who were change agents were reflective. They reflected on their purpose, values, actions, and rationales (Paris & Lung, 2008). Paris and Lung (2008) found that “maintaining an agentic stance required constant, careful reflection” (p. 265). Reflectivity contributed to teachers with the facility to effectively articulate the reasons behind their professional decisions and practices (Paris & Lung, 2008). Agency can begin in teacher preparation programs through the purposeful facilitation of future teachers with the qualities typically held by efficacious change agents, including fervent beliefs, self-efficacy, intentionality, reflectivity, and active decision making skills.

Pre-Service Teacher Preparation

Despite research on the benefits of play and the crucial role of teachers in facilitating play, it is disappearing from early childhood classrooms (Brashier & Norris, 2008; Nicolopoulou, 2011). Most teachers enter the profession through a traditional path: An approved teacher education program at an institution of higher education (Zeichner, 2012). Yet, it is well documented that many traditional teacher preparation programs are not adequately and effectively preparing their graduates for the realities of the classroom (Abell Foundation, 2001; Darling-Hammond, 2006; Labaree, 2004; Levine, 2006; National Comprehensive Center for Teacher Quality and Public Agenda, 2008; Walsh, 2006; Wilson, Floden, & Ferrini-Mundy, 2001). The student-teaching experience and the accompanying seminar represent an opportunity for pre-service teachers to explore and connect theory, pedagogy, and practice. However, it is commonplace for teacher-candidates to witness limited DAP and guided play in their field experiences, even when the cooperating-teachers espouse play as a learning tool (Vera & Geneser, 2012). Without cooperating-teachers as models, pre-service teachers may benefit from an alternative

opportunity to learn about playful pedagogy. When deprived of models, pre-service teachers become challenged in achieving and managing successful play opportunities in their classroom (Vera & Geneser, 2012). This study allowed participants to learn about playful pedagogy through the application of research to a realistic discussion-case. Because applying research to a discussion-case can serve as a detailed learning experience around the topic of play, participants may feel more prepared to and less apprehensive about implementing guided play, despite the fact that their cooperating-teachers may not consistently model appropriate play pedagogy (Vera & Geneser, 2012).

Jigsaw Reading and Discussion-Case Analysis as Intervention

This study employed a cooperative learning strategy for the analysis of a selected research article. Cooperative learning strategies involve situations where “students work and learn together actively in small groups to accomplish a common goal in a mutually helpful manner. Cooperative learning combines active learning and social learning via peer interaction in small groups on academic tasks” (Davidson & Major, 2014, p. 14- 15). Cooperative learning was selected for this study, as opposed to individual strategies, because research demonstrates “that students who work in groups develop an increased ability to solve problems and evidence greater understanding of the material” (Davis, 1993, p. 154). A variation of the jigsaw method (originally developed by Aronson et al., 1978) was selected because it has been shown to lead to effective educational outcomes, such as increased conceptual understanding and efficient use of class time, in a variety of settings including the college classroom (Aronson et al., 1978; Halley, Heiserman, Felix, Eshleman, 2013; Hänze, & Berger, 2007; Perkins & Saris, 2001; Walker & Crogan, 1998). The jigsaw method entails dividing a task among a small group of students,

creating resource interdependence, so that each student becomes an expert on a component of the task and then works with her group to share her knowledge, facilitating cooperative learning (Aronson et al., 1978). In this study, students used the jigsaw method to read and discuss the chosen research article, prior to working in the same small peer group to participate in discussion-case analysis. Each student was assigned a section of the article to read and share.

This study utilized discussion-case analysis as an occasion for exploring guided play because research indicates that such scenarios bridge the gap between theory, research, and practice (Broudy, 1990; Butler, Lee, & Tippins, 2006; Floyd & Bodur, 2005; Koc, 2012; Schrader, Leu, Kinzer, Ataya, Teale, Labbo, & Cammack, 2003; Sudzina & Kilbane, 1994). A discussion-case allows for a remote but genuine classroom experience (Goldblatt & Smith, 2005). Discussion-cases are scenarios and dilemmas, frequently based on authentic events and experiences, used to facilitate discussion (Koc, 2012). They present an issue in detail, but not a solution, and therefore encourage dialogue among students and an opportunity to connect the scenarios and dilemmas to personal experience (Koc, 2012). Cases encourage readers to imagine themselves in the presented situation and vicariously experience a realistic classroom situation (Goldblatt & Smith, 2005). Floyd & Bodur (2005) discovered that structured experiences with case-studies increased the informed decision-making of pre-service teachers and allowed them to delve into a situation from multiple perspectives while also allowing them to connect theory and practice. This finding was instrumental in the development of the discussion-case for this study, which included researcher-created discussion-questions to guide participants, structuring the experience.

Discussion-cases encourage participant reflection. According to Erdman (1983), reflection “can have many uses, including the application of information learned into hypothetical future scenarios to bridge the gap between theory and practice” (p. 3). With discussion-cases, students can contemplate a topic, such as the disappearance of play in the early childhood classroom, and specifically how they might confront the issue before they must do so in the actual classroom (Pitton, 2010). Furthermore, discussion-cases allow student-teachers to engage in reflection on both theory and practice, an important component of becoming a teacher (Perry & Power, 2004).

The researcher created discussion-case used in this study was designed to reflect some of the typical obstacles that teachers, and specifically kindergarten teachers, face when wishing to implement and facilitate play-based opportunities in the classroom. Because research indicates that these pressures come from parents, administrators, and fellow teachers (Hirsh-Pasek et al., 2009; Lynch, 2015; Reed et al., 2012), the discussion-case involved all of these factors. By working with a hypothetical but realistic discussion-case, and applying relevant research to the case, student-teachers were asked to connect research, theory, and practice, and subsequently become more equipped to develop and facilitate play experiences in the classroom. Brashier & Norris (2008) concluded, “Many teachers... circumscribe the developmentally appropriate activities that they know support high-level learning among their students” (p. 39). Discussion-cases offer the opportunity to discover how to maintain DAP despite a prevalent pressure to do otherwise.

Graphic Organizers for Research and Discussion-Case Analysis

Graphic organizers help students organize information from a text, such as a research article (Fisher, Frey, & Williams, 2002). They provide a viable strategy for assisting college students with the reading and analyzing of research. Because the majority of pre-service teachers do not have experience analyzing research on play and applying this research (Eckhoff, 2011; Ranz-Smith, 2012), they can benefit from using graphic organizers in combination with a discussion-case. Gill-Garcia and Villegas' (2003) case study revealed that graduate and undergraduate teacher-candidates found graphic organizers to be beneficial to their learning, and higher education faculty found the organizers to be valuable for the promotion of students' higher-level thinking skills. Similarly, Narkawicz and Casteel (2012) found that college students in a research methods course who employed a graphic organizer to supplement the lectures performed better than those who were only taught using a lecture format. Based on this research, participants in this study were given a researcher-created graphic organizer for the discussion-case application activity.

Theoretical Framework

This study uses the theoretical lens of constructivism, specifically Vygotsky's social constructivism, as a framework. Social constructivism guides this research in two ways. It guides the treatment itself allowing the researcher to model constructivism as a teaching pedagogy for the participants, and it provides a structure that serves to help participants analyze and understand the research on play. See Figure 1 for this study's theoretical framework.

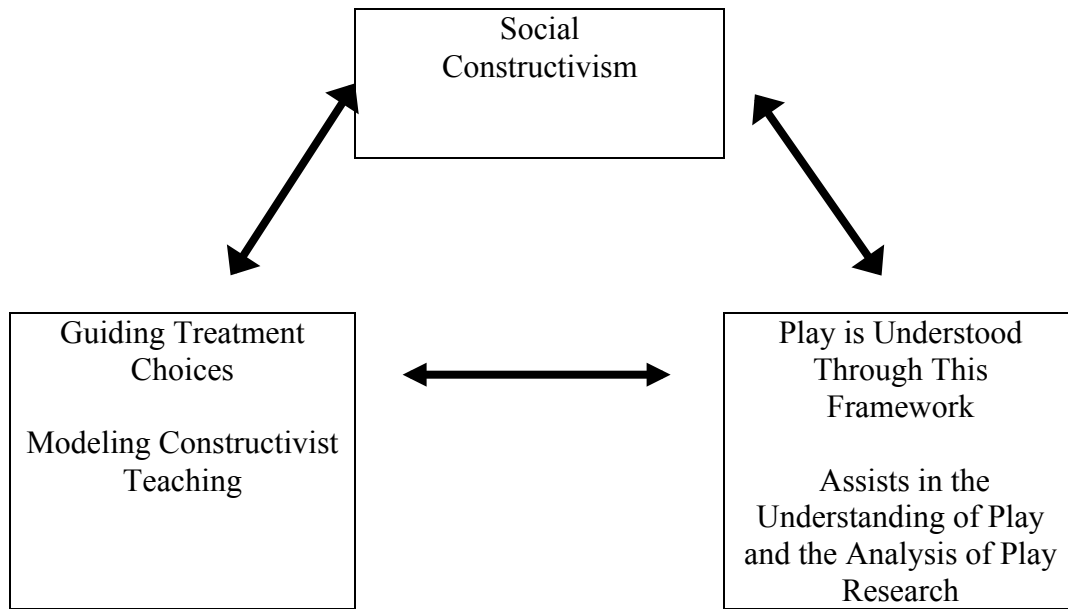


Figure 1. Theoretical framework

Social Constructivism

Constructivism is the “reigning paradigm in teacher education in America today” (Hausfather, 2001, p. 15). There are many significant and renowned contributors to constructivism including Dewey, Vygotsky, and Piaget (Beck & Kosnik, 2006). The framework of this study is specifically Vygotsky’s (1930; 1980) social constructivist framework, which propounds that social interactions are important to higher mental function (Bodrova, 1997). Accordingly, “we actively construct our knowledge and do not passively receive it from experience or heredity” (Hausfather, 2001, p. 15). Furthermore, learning is a social process and requires integration, inquiry, and community (Beck & Kosnik, 2006). Constructivism asserts that problem-solving should be a component of teaching because when students problem solve, as a discussion-case necessitates, they are interacting with information, and the novel information becomes knowledge (Hausfather,

2001). Additionally, social constructivism maintains that problem-solving should be collaborative in nature, allowing for shared reasoning and problem solving (Hausfather, 2001). Constructivism implies that knowledge “cannot be imposed or transferred intact from the mind of one knower to the mind of another” (Karagiorgi & Symeou, 2005, p. 18). DAP is actually built upon the principles of constructivism. In the NAEYC position statement (2009), it is explained, “young children construct their knowledge and understanding of the world in the course of their own experiences, as well as from teachers, family members, peers and older children, and from books and other media” (p. 14). Young children are constructivists by nature.

Vygotsky’s zone of proximal development (ZPD) is a central element of social constructivism. Vygotsky (1930; 1980) defined the ZPD as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). In other words, frequently one can do more through exchanges with others than they are capable of independently.

Social constructivism guides this study’s treatment, allowing the researcher to model constructivism as a teaching pedagogy for the participants. Participants work collaboratively to analyze research and apply it to a discussion-case with the assumption that such peer interaction facilitates higher mental function and allows for the construction of knowledge. Participants do not just learn from the information provided by an “expert” but discover through interaction with one another; participants assemble their learning communally. Furthermore, it is valuable to note the role of ZPD in this study. Participants are able to engage in a level of research analysis and topic exploration

that they would be unable to complete independently, without the scaffolding provided by peers (other participants) and the instructor/researcher) (Bodrova, 1997).

Therefore, while participating in this study, participants experience constructivism from the perspective of learners and witness their instructor (the researcher) modeling this teaching framework. If pre-service teachers are going to become teachers that successfully utilize a constructivist framework with their own students, they should experience the framework as a learner (Beck & Kosnik, 2006; Hausfather, 1996).

Research indicates that constructivist classrooms are not the norm in higher-education, despite the evidence that they are effective (Fear et al., 2003). Cunningham (2014) found that by using DAP in the college classroom with pre-service teachers, as this research does, students developed a deeper understanding of DAP to use in their own classrooms as well as increased confidence in creating curriculum that is appropriate. DAP can't just be discussed in college classrooms, but must be seen and experienced by pre-service students in classroom activities (Dart et al., 2000). As Cowden et al. (2009) explained, "While professors need to lecture on the merits of constructivism, they also need to model constructivist practices in their classes" (p. 2). A social constructivist framework guiding the treatment in this study allowed participants to be exposed to pedagogy that aligned with the values espoused by the institution preparing them (Beck & Kosnik, 2006), and might contribute to pre-service teachers' ability to use the framework in their future teaching (Cunningham, 2014).

Social Constructivism also steered this research in a second manner. The topic of play is best understood through a constructivist framework because children's play allows for the active construction of knowledge (NAEYC, 2009). According to

Vygotsky's (1930; 1980) framework, play in the early childhood classroom is best appreciated as a constructivist activity. Vygotsky (1930; 1980) asserted that play is a highly important and influential factor in a child's development. He explained, "As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development" (Vygotsky, 1930; 1980, p. 102). Thus, play affords tremendous opportunities for growth and development. When children play with their peers and under the guidance of their teachers, they can demonstrate skills they would not be able to exhibit unaided (Vygotsky, 1930; 1980). Vygotsky (1930; 1978) asserted that play is the foremost influence in a child's development.

The NAEYC position statement (2009) reflects Vygotsky's theory stating, "Development and learning advance when children are challenged to achieve at a level just beyond their current mastery" (p. 3). In fact, the very definition of guided play echoes the tenets of constructivism: guided play is specifically defined as play that "actively engages children in pleasurable and seemingly spontaneous activities that encourage academic exploration and learning" (Hirsh-Pasek et al., 2009, p. 27). The selected research on play discusses the constructivist nature of play. Therefore, the research on play that participants analyze and apply to a discussion-case is best appreciated through this framework of constructivism.

Conclusion

This literature review established that although guided play represents DAP in the early childhood classroom and research consistently establishes its effectiveness and appropriateness in this context, it continues to disappear from classrooms. While the literature provided a clear understanding of both the causes and consequences of this

trend, there were notable areas absent from the research. Because play is rapidly disappearing from the early childhood classroom despite the convincing research on its effectiveness, it was sensible to examine preparing teachers to analyze research on play, and use it to carry out research-based play opportunities even in the face of the pressure to abandon DAP. This study's research questions were designed to address how facilitated research analysis with discussion-case application impacts pre-service teachers' knowledge and perception of the role and value of play as well as their confidence in implementing play opportunities in the classroom despite realistic obstacles; and to explore the experience of using the strategy of discussion-case application as a learning instrument. This mixed methods study uses quantitative and qualitative data to answer the research questions and contribute to the gap in the available research.

Chapter 3

Methodology

The purpose of this sequential explanatory mixed method study was to examine the impact and experience of participating in collaborative and facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. This mixed methods study used a variant of the explanatory design, the participation selection model, where the quantitative information was used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano Clark, 2007). Specifically, the quantitative survey data led to the selection of participants with the strongest and weakest beliefs in DAP for the qualitative interviews. The purpose of the interviews was to provide pre-service teachers with the strongest and weakest beliefs in DAP an opportunity to describe their feelings about and comfort with play in the early childhood classroom, and to reflect upon the research analysis and discussion-case experience.

Because this mixed-method study used the participation selection model of the explanatory design, the quantitative phase was used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano Clark, 2007). For this reason, the research questions were largely qualitative in nature, and also included a research question that specifically addressed the mixing of data from the two strands (Creswell, 2014). This study sought to answer the following questions:

1. What are the self-reported DAP and DIP scores of early-childhood pre-

service teachers in the early part of their student-teaching experience at Brooklyn College? (Quantitative)

2. How do pre-service teachers describe (using a graphic organizer) their proposed solution to the discussion-case detailing the disappearance of play in the classroom? (Qualitative)
3. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the experience of reading research on play collaboratively and applying it to a discussion-case? (Qualitative)
4. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe their views on play in the early childhood classroom, specifically the importance of play? (Qualitative)
5. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the impact of facilitated research analysis with discussion-case application on their belief in the importance of play in the early childhood classroom, as well as their self-confidence in providing developmentally appropriate play opportunities in the classroom (even in the face of realistic obstacles)? (Qualitative)
6. How does the qualitative data obtained in the second strand of this research help to elaborate upon and explain the data from the initial quantitative strand? (Mixed Methods)

Assumption of and Rationale for the Selected Research Design

Mixed methods research is best understood when compared to its "monomethod counterparts" because it integrates qualitative and quantitative methods and data, using

both to inform one another (Onwuegbuzie & Leech, 2004, p. 771). Mixed methods research is an effective tool for understanding complex phenomenon more completely, creating a fuller picture (Greene, 2007). A mixed methods design for this study provided a more comprehensive understanding of the research problem (Creswell, 2014). Specifically, this research lent itself to an explanatory sequential mixed method design, with two distinct phases, allowing the quantitative data to be further examined and explained with qualitative data (Creswell, 2014). The two strands together provided a more complete picture of the phenomenon (Greene, 2007). This study prioritized the qualitative strand's methods and data because this phase provided an in-depth understanding of the research phenomenon. Data from the first phase informed the selection of participants for the second strand, and the quantitative and qualitative data were also merged during the interpretation stage in order to explore how the two sets of data create a fuller picture (Greene, 2007).

Greene, Caracelli, and Graham (1989) identified five key justifications for the mixing of methods: triangulation, complementarity, development, initiation, and expansion (p. 255). This study largely used a mixed method design for the developmental purpose, where initial results from one method were used to develop the second strand, including the selection of participants (Green et al., 1989). In addition, because of the study's sequential design, the use of mixed methods had the purposes of complementarity and expansion (Onwuegbuzie & Collins, 2007).

The mixed method design was best suited to this research problem and this pragmatic philosophical worldview because it uses a pluralistic approach to elucidate the problem and determine a potential strategy for combatting the issue (Creswell, 2014). In

general, mixed method research rejects dogmatism and instead utilizes multiple approaches to answer a research question (Johnson & Onwuegbuzie, 2004).

Sequential Explanatory Mixed Method Design

The purpose of this sequential explanatory mixed method study was to examine the impact and experience of participating in cooperative and facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom, even in the face of obstacles. The explanatory sequential design allowed me to develop a quantitative database through a survey, which was explained further by the qualitative data acquired through in-depth interviews with a subset of participants (Creswell, 2014). This sequential explanatory mixed method design study consisted of two distinct phases, an initial quantitative strand followed by a qualitative strand (Creswell, 2014). In this participant selection variant of the mixed methods explanatory design, the quantitative data obtained from the initial survey was used to identify the participants for the qualitative interviews that followed (Creswell & Plano Clark, 2007). Criterion for the selection of participants for the qualitative phase was determined before the quantitative phase was implemented (Creswell & Plano Clark, 2007). I was interested in exploring the discussion-case experience with participants who self-reported the strongest and weakest beliefs in DAP. Because play is considered an important component of DAP (Copple & Bredekamp, 2009), I wanted to look at the outermost boundaries of this continuum to explore how those at both ends value a specific component of DAP, play. Furthermore, I was interested in exploring the impact of the

discussion-case exercise on the views of those participants at both edges. I proposed that by looking specifically at the extremes (highest and lowest DAP scores), the impact of the experience might become clearer.

This study followed a fully mixed sequential dominant status design, drawn from Onwuegbuzie and Leech's (2006) identified mixed methods typologies, where the qualitative design is given more weight (see Figure 2). In the first phase, attitudinal data was collected before the treatment (Patton, 1991). Data from the quantitative phase was used for the purpose of selecting participants for the more heavily weighted qualitative phase (quan→QUAL). The selection of participants for the qualitative was determined by specific criteria, as required by the participant selection model (Creswell & Plano Clark, 2007). Quantitative and qualitative data was also merged during the interpretation stage, where the relationship between survey scores (quan data) and interview responses (QUAL data) was explored.

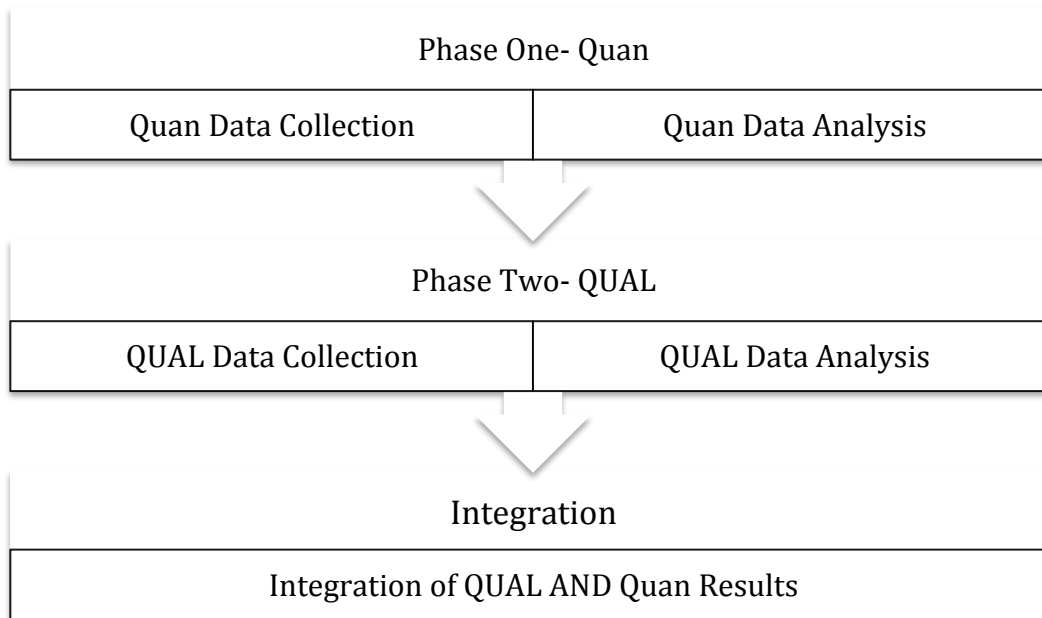


Figure 2. Explanatory sequential design.

Creswell and Plano Clark (2007) describe two variants of the explanatory design, the follow-up explanations model and the participant selection model. This research used the participant selection model because the primary purpose of the quantitative strand of the study was to identify pre-service teachers with the strongest and weakest beliefs in DAP. Specifically, the initial quantitative phase was conducted in order to stratify the participants into two categories as determined by DAP beliefs (highest and lowest). Participants were selected from both categories for the qualitative phase of the study.

Pragmatic Worldview

Creswell and Plano Clark (2007) explain, “All studies include assumptions about the world and knowledge that informs the inquiries” (p. 20). The larger philosophical worldview proffered in this research is pragmatism (Creswell, 2014). This worldview

shapes the research because multiple available approaches are used to understand the research problem (Creswell, 2014). In general, “pragmatists consider the research question to be more important than either the method they use or the worldview that is supposed to underlie the method” (Tashakkori & Teddlie, 1998, p. 21). Accordingly, the design was selected for this study because I believed it was the best method for answering the research questions. That is, using initial quantitative data to determine participants for the qualitative component of this study enabled the researcher to answer the research questions most effectively. By looking at the extreme edges of the DAP continuum, as determined by the quantitative data, the qualitative data revealed the views of those with the most extreme DAP philosophies. This allowed me to look at any potential differences between those at the boundaries, and helped to distinguish any effects which might otherwise go unnoticed if the entire distribution was considered.

Context

Participants were 17 pre-service students in the early childhood department; three of the participants were graduate students while the other fourteen were undergraduate students. All 17 participants were completing their student-teaching experience and simultaneously enrolled in an early childhood student-teaching seminar at Brooklyn College, CUNY, in Brooklyn, New York. Student-teaching is a requirement in most states for teacher candidates, and most commonly the final experience of pre-service teachers before graduating (Greenberg, Pomerance, & Walsh, 2011). Brooklyn College pre-service early childhood graduate and undergraduate students can enroll in the student-teaching experience after completing all of the other required courses for graduation (some courses may be taken simultaneously, with permission).

Unfortunately, pre-service student-teachers frequently have limited opportunities to witness guided play in action. Commonly, the classrooms where student-teachers are placed do not function as models for appropriate play in the classroom, even when the cooperating-teachers espouse play (Vera & Geneser, 2012). Teachers frequently value play but experience enormous challenges in implementing it due largely to an emphasis on testing, rigid schedules, and standards (Ranz-Smith, 2007). As a result, “In the current educational environment, with its emphasis on standards-based curriculum and high stakes testing, the concept of play has been relegated to a minor status” (Vera & Geneser, 2012, p.5). In New York City, where Brooklyn College pre-service students are placed for student-teaching, Miller & Almon (2009) found that 79% of kindergarten teachers spent time each day on test-preparation. Furthermore, kindergarteners spent less than 30 minutes engaged in play each day. Therefore, pre-service teachers can complete their teacher-education programs possessing only a very rudimentary understanding of the pedagogy of guided play, without witnessing its implementation in classrooms and with students. Because research indicates that inexperienced teachers benefit from discussion-case analysis to hone their teaching skills when opportunities to do so in the student-teaching classroom are limited (Pitton, 2010), student-teachers at Brooklyn College were well suited to this study. A discussion-case allowed participants to reflect on issues and strategize plans and solutions to problems before they confront them in their classroom practice (Pitton, 2010).

Participants

Seventeen early childhood pre-service student-teachers enrolled in two different sections of Student-Teaching Seminar, at Brooklyn College, in Brooklyn, New York,

during the Fall 2015 semester participated in this study. Fourteen of the seventeen participants were undergraduate students and the remaining three were graduate students. All participants were female. Student-Teaching Seminar (ECAE 4001/7120) is a 15-week graduate and undergraduate seminar for pre-service early childhood teachers concurrently enrolled in full-time student teaching in a local public or private school setting. Participants were selected through the purposive sampling of two intact classrooms (student-teaching seminars). This was an appropriate sampling method because it allowed for the selecting of individuals in the best position to answer the research questions (Creswell, 2009).

As part of the seminar course requirements, students were required to participate in the research analysis and discussion-case experience. However, participation in the survey and interview was voluntary. Research participants provided verbal informed consent for the data to be used in this study (see Appendix A for the oral informed consent script). Using a participation selection model, the quantitative data obtained during the initial phase of the study was used to purposefully select participants for the second qualitative phase (Creswell & Plano Clark, 2007). Participants for the qualitative phase were selected based on their quantitative survey responses using specific pre-determined criteria.

The purpose of the initial quantitative phase was to gather information about the importance that participants place on DAP. This information was intended to guide the purposive sampling of the participants for the qualitative phase, and not intended to make statistical and analytical determinations (Onwuegbuzie & Collins, 2007, p. 288). For this reason, a sample size of 17 during the quantitative phase was acceptable, although it does

not provide sufficient statistical power (Onwuegbuzie & Collins, 2007). As Onwuegbuzie & Collins (2007) explain, “small samples can be used in quantitative research that represents exploratory research or basic research” (p. 288). The participants in the qualitative phase of this study represent a subset of the participants from the initial quantitative phase, implying a nested relationship between the initial 17 participants in the first phase and the eight participants selected for the second phase (Onwuegbuzie & Collins, 2007). A nested relationship is a sampling design choice based on the desired relationship between the qualitative and quantitative samples and “implies that the sample members selected for one phase of the study represent a subset of those participants chosen for the other facet of the investigation” (Onwuegbuzie & Collins, 2007, p. 292). After the completion of the quantitative surveys, the data was analyzed and participants were assigned a DAP and DIP score based on their responses to the questions. A total DAP score for each participant was calculated and these results were ranked in descending order. The students with the four highest and four lowest total DAP scores who had indicated a willingness to participate in the second phase of the study were selected and interviewed. Onwuegbuzie & Collins (2007) recommend at least three participants for each subgroup when using a nested sampling design. I was able to interview a total of eight participants in the second phase of the study.

Data Collection Methods

Quantitative Data

The first strand of this study was the quantitative phase with a focus on identifying participants’ beliefs in DAP using a survey. Participants provided verbal informed consent prior to completing the survey. The Teacher Beliefs Scale (TBS) was

used to determine participants' DAP and DIP scores (see Appendix B for the survey protocol). The verbal consent process explained the purpose of the study; how the data would be used; the procedure, including the use of an audio recorder (for the interview component); how confidentiality would be maintained; and the fact that participation was purely voluntary, and would not impact a seminar grade. Participants provided consent for the data to be used for this study and not simply as part of the course obligations. The questionnaires were administered to all of the participants, in-person, during the student-teaching seminar. Participants were informed that I was investigating early-childhood pre-service teachers beliefs about a particular component of DAP— play. They were also instructed to complete the questionnaire with a focus on a kindergarten classroom.

Qualitative Data

Following the quantitative phase of this study, but before the qualitative data was gathered, participants fulfilled a student-teaching seminar requirement— they read an assigned piece of research on play during seminar using a variation of the jigsaw method, and then participated in an activity to analyze this research and apply it to a researcher-created discussion-case. I selected an article by Almon and Miller (2011), published by the Alliance for Childhood, which presents a summary of the research on play in early-childhood classrooms and explores recommendations for restoring play to early childhood education. In class, students were provided with a researcher-created graphic organizer (see Appendix C) to assist them in analyzing the research and relating this research to a researcher-created discussion-case with accompanying questions (see Appendix D). Students worked in small groups and collaboratively to complete their

graphic organizers, although each student was expected to submit their own completed graphic organizer at the end of the session.

The qualitative phase took place with the purpose of understanding the experience and beliefs of those participants who were found to believe the most and the least in DAP, as measured by the TBS. Therefore, purposeful sampling was used to determine the participants for the second strand, where interviews were used for collecting this data. Questions were informed by a literature review of the relevant topics (Rubin & Rubin, 2005), including teachers' use of research, the research-practice gap, and the research on play in early childhood education, as well as the responses to the survey (TBS), and finally by the collected graphic organizers, as they provided a foundation for discussion (Crilly, Blackwell, & Clarkson, 2006).

One semi-structured interview was conducted with each participant selected for this phase of the study (see Appendix E for the interview protocol). Interviews took place at the participants' convenience on the Brooklyn College campus. The interviews were audio-recorded and transcribed, and I also took notes on the protocol document during the interview, ensuring all data was gathered (Creswell & Plano Clark, 2007). A semi-structured interview was ideal for this study because it "allows the researcher to gain insights into others' perspectives about the phenomenon under study; it is particularly useful for ascertaining respondents' thoughts, perceptions, feelings, and retrospective accounts of events" (Goodwin & Goodwin, 1996, p. 134). A semi-structured interview protocol was created with the understanding that I would ask appropriate follow-up questions (Rubin & Rubin, 2005). The purpose of these interviews was to better understand the participants' views on play and their perspectives on the experience of

collaboratively analyzing research and applying the research to a discussion-case.

Participants were given the opportunity to look at their completed graphic organizer when answering the interview questions.

Instruments for Data Collection

Quantitative Instrument

The quantitative strand of this study required the administering of a survey to all participants. IRB permission was obtained from both Brooklyn College and Rowan University for the survey's use. In order to assess participants beliefs about DAP in the early childhood classroom, the Teacher Beliefs Scale (TBS) was administered, with the addition of demographic questions, to gather information about the participants age, gender, level of study, and student-teaching placement (work site or assigned placement, age/grade level, and type of school). The participants were also asked at the end of the demographic component of the survey to check a box if they were willing to participate in a follow-up one-on-one interview at a later date.

The TBS, originally created by Charlesworth, Hart, Burts, and Hernandez (1991) and updated by Charlesworth et al. (1993), was selected because its purpose is to determine early childhood teachers' DAP beliefs. It was created using DAP, as outlined by the National Association for the Education of Young Children (NAEYC) policy statement. TBS consists of a total of thirty-seven items, and all but one are measured on a 5-point Likert scale. There is one question that asks participants to rank the amount of influence that six factors (parents, parish or school, principal, yourself, state regulations, and other teachers) have on planning and implementing. The other 36 questions ask participants to respond to developmentally appropriate and inappropriate beliefs. For

example, question 12 asks, “It is _____ for kindergarteners to learn through active exploration.” Participants respond on a 5-point scale from 1 (not important at all) to 5 (extremely important). TBS includes 22 statements that measure DAP and 14 statements that measure DIP. Participants’ responses can be grouped according to DAP and DIP. Because of the Likert scale, the questionnaire provides a picture of the beliefs of teachers using a degree-of-importance rating scale, revealing the relative value of beliefs (Charlesworth et al., 1993).

Validity for the TBS was established by Charlesworth et al. (1991; 1993) through observational studies comparing early childhood teachers’ responses to the questions and classroom observations; observational ratings were highly congruent with TBS scores. Six reliable factors (four DAP and two DIP) were determined by statistical analysis. Cronbach’s alphas were performed to measure internal consistency for these factors: appropriate social item ($\alpha = .77$), appropriate individualization ($\alpha = .70$), appropriate literacy activities ($\alpha = .60$), appropriate integrated curriculum beliefs ($\alpha = .66$), inappropriate activities and materials ($\alpha = .84$), and inappropriate structure ($\alpha = .58$).

After the completion of the quantitative surveys, the data was analyzed and participants were assigned a total DAP and DIP score based on their responses to the questions. Using the TBS, a total DAP score can be calculated, ranging from 22 to 110, and a total DIP score can be determined, ranging from 14 to 70. The mean DAP and DIP scores were also determined. All of the total DAP scores were ranked in descending order. From that ordered list, the scores of the eleven participants that had indicated a willingness to be interviewed were highlighted. From these eleven participants, the individuals with the four highest and four lowest total DAP scores were selected and interviewed. Therefore, I was able to interview a total of eight participants in the second

phase of the study.

Qualitative Instruments

Graphic organizer. In order to investigate participants' proposed solution to a discussion-case involving the absence of play in a kindergarten classroom, a graphic organizer was completed by each participant, individually. The GO allowed students to write down the solution they found most appropriate to the problem/issue presented in the discussion-case, and to support this solution with components of the research they read.

Interview protocol. In order to examine participants' views on play and the discussion-case experience, individual interviews with open-ended questions were conducted with eight participants (four with the highest DAP scores and four with the lowest DAP scores). I developed a semi-structured interview protocol for this study in order to guide the interviews (see Appendix F). The interview protocol included eight open-ended questions addressing participants' views on play in the early childhood classroom; the perceived role of the teacher in facilitating play in the early childhood classroom; confidence with facilitating play in the early childhood classroom; and the experience of reading and analyzing research collaboratively and applying it to a discussion-case (the treatment experience). While the interview protocol allowed all participants to be asked the same initial questions, follow-up questions varied based on the participants' responses.

Piloting

Prior to implementing this research, two different early-childhood education classes at Brooklyn College, in the summer of 2015, with eight students in each class, were chosen for piloting the study. The enrolled students (all studying early-childhood

education at the undergraduate or graduate level) took the quantitative survey and participated in the experience of research analysis with discussion-case application. Some of these students were asked to participate in pilot interviews. The students that participated in any component of the pilot did not participate in the formal research.

Piloting the experience of reading and analyzing the play on research and applying it to the discussion-case allowed me to make small changes to the procedure and materials I used. Piloting the survey and interview protocol assisted in determining the questions which required revisions. The pretesting of the instruments was intended to help identify the “questions that respondents have difficulty understanding or interpret differently than the researcher intended” (Krosnick, 1999, p. 541). Rather than relying on debriefing with pilot participants after they responded to the interview questions, participants were asked to verbally reflect on their understanding of each interview question before answering, and answer each question while also sharing their thought process, because “respondent confusion and misunderstandings can readily be identified in this way” (Krosnick, 1999, p. 542). Revisions were made based on this method of cognitive pretesting.

Quantitative Data Analysis

The 36 Likert-response questions on the TBS were grouped according to those that measure DAP (questions 3, 5, 6, 8, 9, 10, 12, 13, 18, 21, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, and 37) and those that measure DIP (questions 2, 4, 7, 11, 14, 15, 16, 17, 19, 20, 22, 23, 24, and 32). For each participant, the total DAP score was calculated by combining the responses along the 5-point Likert scale to the DAP statements as well as the mean DAP response (along the 5-point Likert scale). In addition, the mean and median total DAP score was calculated and the mean DAP response (along the 5-point

Likert scale). Similarly, a total DIP score for each participant was calculated by adding the responses to the 14 statements that measure DIP. In addition, a mean DIP response (along the 5-point Likert scale) for each participant was calculated. Finally, the mean and median total DIP scores for all participants was determined.

The quantitative data was intended to assist in stratifying the participants for the qualitative phase of the research. The total DAP scores of all seventeen participants were ranked in descending order. From that list of scores, the scores of the eleven participants that had indicated a willingness to be interviewed were highlighted. From these eleven participants, the individuals with the four highest and four lowest total DAP scores were selected and interviewed. Therefore, I was able to interview a total of eight participants in the second phase of the study.

Qualitative Data Analysis

Interviews were transcribed, word for word, after the interview (Rubin & Rubin, 2005). These transcripts as well as the solution proposed by each participant on their graphic organizer were used for coding, which took place in two cycles. According to Saldaña (2009), a code “is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3).

The First Cycle strategy of coding was in-vivo coding and descriptive coding, which were completed manually. With in-vivo coding, the actual words of participants are used and allowing a participant's voice to be honored, an important component of understanding their experiences (Saldaña, 2009, p. 91). This was an appropriate coding method for this research because I hoped to better understand the views and experiences

of participants, as they described them. In addition, descriptive codes were used; such a code “summarizes the primary topic of the excerpt” (Saldaña, 2009, p. 3).

I identified and reviewed the initial codes that addressed my research questions for repetitions and overlaps within and between participants, allowing similarities to emerge, and becoming the basis for secondary coding (Saldaña, 2009). Following in-vivo and descriptive coding, pattern coding was performed manually. The Second Cycle coding “further manages, filters, highlights, and focuses the salient features of the qualitative data record for generating categories, themes, and concepts, grasping meaning, and/or building theory” (Saldaña, 2009, p. 8). The purpose of pattern coding was to locate “repetitive patterns of action and consistencies in human affairs as documented in the data” (Saldaña, 2009, p. 5). Coding is an on-going process and consequently First Cycle codes were “later subsumed by other codes, relabeled, or dropped all together” (Saldaña, 2009, p. 10). These secondary codes helped to reduce the initial codes by sorting and relabeling into categories, and subsequently themes (Saldaña, 2009). The codes were used to determine categories and sub-categories (Saldaña, 2009). These categories were compared to one another allowing me to “progress toward the thematic, conceptual, and theoretical” (Saldaña, 2009, p. 11). Themes were deduced by recognizing repetitions, similarities, and differences within the data (Ryan & Bernard, 2003). A theme “is an outcome of coding, categorization, and analytic reflection, not something that is, in itself, coded” (Saldaña, 2009, p. 13).

Validity, Credibility & Trustworthiness

Multiple techniques ensured validity, credibility, and trustworthiness of the data collection methods and the analysis of the data. This study prioritized the qualitative

strand, and in qualitative research “the concepts of reliability and validity are viewed differently” (Golafshani, 2003, p. 599). In qualitative research, reliability and validity are usually not considered separately and instead are described with terms such as credibility and trustworthiness (Golafshani, 2003). Lincoln and Guba (1985) assert that trustworthiness of research is essential. According to Shank (2006) “Trustworthiness is simply the degree to which we can depend on and trust given research findings” (p. 115). Accordingly, trustworthiness requires credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). From the standpoint of the qualitative researcher, “the credibility of qualitative research depends on the ability and effort of the researcher” (Golafshani, 2003, p. 600). All efforts were made during every phase of this research to establish trustworthiness.

Because the study relies on data from only participants in a single program at only one institution, generalizability may be limited. However, generalizability was not the intention of the study. Furthermore, the results obtained in this study may serve as a springboard for future research, which can explore generalizability to other programs and institutions. Additionally, because the survey questions largely asked participants about attitudes and beliefs, which are not necessarily precise or consistent, measurement error is a concern and a potential limitation of my instrument (Salant & Dillman, 1994). However, it is my hope that future research that is more generalizable will also use additional methods such as direct observation.

Member checking allowed participants to review data and findings during the research process to ensure accuracy (Lincoln and Guba, 1985). Member-checks are frequently considered the most important credibility check because participants can speak

to inferences made, ensuring that they are indeed credible (Teddlie & Tashakkori, 2009). Cho and Trent (2006) posit that member checks allow “validity as a transactional process... by which misunderstandings can be adjusted and thus fixed [and] informants are engaged in making sure their realities correspond with the interpretations brought forth by the researchers” (p. 322). Member checks were used to increase trustworthiness through building credibility (Fink, 2012). Member checks involved providing participants with the transcript of their interviews for review and providing participants with the findings of the study, both in an attempt to ensure accuracy (Creswell, 2009). Participants had the opportunity to correct or clarify any responses, and these changes and additions were noted. According to Cho & Trent (2006):

The primary concern of this qualitative research purpose is not with identifying effectiveness or causal relationships as in the ‘truth’ seeking purpose, but, instead, focuses on explicating the unique, idiosyncratic meanings and perspectives constructed by individuals, groups, or both who live/act in a particular context. (p. 328)

In this way, credibility was secured not through causation or generalizability, but through clear and robust descriptions. Credibility in this study was increased by supplying rich descriptions of the findings (Fink, 2012). It was essential that the data represented the experience of the participants and thick descriptions helped to achieve this. Ponterotto (2006) explains, “It is the qualitative researcher’s task to thickly describe social action, so that thick interpretations of the actions can be made, presented in written form, and made available to a wide audience of readers” (p. 542). Thick description in this research include densely described participants, “describing fully the participants of

the study without compromising anonymity” (Ponterotto, 2006, p. 546); a detailed description of the setting and procedures of the research; results that allow “adequate ‘voice’ of participants” so that “the reader can visualize the participant-interviewer interactions and gets a sense of the cognitive and emotive state of the interviewee (and interviewer)” (Ponterotto, 2006, p. 547); and a discussion section that “merges the participants’ lived experiences with the researcher’s interpretations of these experiences” so that a reader is, “able to digest the essential elements of the findings, and is able to discern whether she or he would have come to the same interpretive conclusions as the report’s author” (Ponterotto, 2006, p. 547). Ponterotto (2006) argues that without this type of thick description “‘thick interpretation’ is not possible” (p. 542).

Pre-testing of the survey helped to improve the protocol and ensure that the questions were clear and being interpreted as intended (Fink, 2012). Prior to the study, current students in the early childhood program at Brooklyn College were asked to complete the survey for the purpose of assessing validity, helping to make necessary changes. Furthermore, prior to the research, interviews using the developed protocol were conducted with students to assist in determining which questions required revisions. Similarly, by pre-testing the interview protocol, validity was improved, as the pre-testing allowed for the elimination of questions that were misleading or confusing and the clarification of questions. Those who participated in this pre-testing were not eligible to participate in this study.

Role of Researcher

Hatch (2007) asserts, “In early childhood education, we have our own personal and professional blurring of experience, knowledge, and competence” (p. 209). As a

researcher, it was vital that I acknowledged and understood how my assumptions, experiences, and beliefs could impact my role as researcher. I have worked in early childhood and childhood education in varying capacities for nearly 20 years, most recently as an instructor of pre-service undergraduate and graduate students, likely leading to multiple biases and assumptions. Creswell (2009) implores us to identify “personal values, assumptions, and biases at the outset of the study” (Creswell, 2009, p. 196). It was essential for me to identify ways in which my values, assumptions, and biases could impact my role as researcher especially during the interview stage of the study and while interpreting data.

Furthermore, as a researcher playing the dual role of both researcher and instructor to the participants, it was essential that I acknowledged the advantages that come with this role as well as the potential issues. As an instructor of the student-teaching seminar at Brooklyn College for five years, I have a great deal of information on the process and experience. This enhanced my ability to understand the research topic and devise useful instruments for this research. An insider-researcher has an advantage “when dealing with the complexity of work situations because [they] have in-depth knowledge of many of the complex issues” (Costley, Geoffrey, & Gibbs, 2010, p. 3). However, I had to be careful not to allow prior experiences with students to impact the research process. Insider-research can be criticized because “there may be a lack of impartiality, a vested interest in certain results being achieved and problems concerning a fresh and objective view of data” (Costley et al., 2010, p. 6). Furthermore, as a combined instructor-researcher, I attempted to make participants comfortable with the research process,

allowing them to act and talk honestly, and not worry about being graded or penalized for their thoughts and actions.

Bracketing was essential because of my own potential biases and because of my dual role as researcher and instructor. Bracketing was vital because "foreknowledge and suppositions limit our understanding of the participants' perspectives because we already know a great deal about the phenomenon" (Chan, Fung, & Chien, 2013, p. 3). I created an interview protocol with open-ended questions so that I could create focusing but not leading questions, bracketing my own beliefs in order to hear the participants' experience (Chan et al., 2013, p. 4-5). Admittedly, I was "not separate from the study" because I had ongoing contact with participants, and this certainly impacted the research process, especially my analysis of the interview transcripts (Dwyer & Buckle, 2009, p. 61). I was aware of my beliefs and pre-conceived notions, but strove to bracket them and "put aside [my] repertoires of knowledge, beliefs, values and experiences in order to accurately describe participants' life experiences" (Chan et al., 2013, p. 2) by writing down only what participants actually said, keeping subjective observations/reactions recorded separately, and staying open to participants' responses. I attempted to allow participants to speak freely and I was committed to remaining open to their thoughts because, "When the researchers maintain their curiosity regarding what they might not know, the participants are allowed to express themselves freely" (Chan et al., 2013, p. 5).

Ethical Considerations

The ethical obligations of the researcher, as mandated by the IRB of both Brooklyn College and Rowan University were applied to this study. The study gained official IRB approval from both institutions prior to the commencement of research.

As part of the student-teaching seminar requirements, participants completed the quantitative survey and participated in the research analysis and discussion-case experience. Participants provided verbal informed consent for the data to be used for this study and not simply as part of the course obligations. Participation in the interview process was completely voluntary. However, because of the relationship between the participants and me (the researcher and instructor), it was important to address potential issues with power dynamics (Sieber & Tolich, 2012). As my students, participants might feel obligated to participate because of my position and an eagerness to please authority. Because of this, I made certain that the consent process eliminated any pressure to participate.

Privacy and Confidentiality

All potential participants were told that participation was voluntary. All participants that provided verbal informed consent were assigned a code. Before completing the survey, participants completed a form that listed their code and their name and contact information. This list was kept in a different location than the collected data, with restricted access. Only I had access to this list and the data. On the survey, participants used their assigned code and not their name. If a participant was interested in participating in the interview phase, I asked them to check a box indicating so, at the end of the survey. For participants who agreed to be interviewed and were selected for an interview, the list was used to determine the contact information. The interviewees were identified by their code during the interview process as well, and on the transcripts created from the audio-recordings. Participants' responses were never be cited by name or linked to any unique identifying information. Furthermore, all data—including the

completed surveys, interview recordings, and interview transcriptions–was stored in a locked cabinet with restricted access. Upon completing my doctoral program, I will destroy the list that links the codes to participants' name. This will fully anonymize the data and prepare the data for potential secondary use, specifically examining new research questions in the future.

Conclusion

This chapter has described the research design selected for this study. The explanatory and sequential design of this study sought to use quantitative data to determine appropriate participants for the qualitative phase of research. Consequently, this research largely used a mixed method design for the developmental purpose, where initial results from one method were used to develop the second strand (Green et al., 1989). The study's data collection and analysis methods and instruments were described. The methods and instruments were selected to address the specific research questions. Issues of validity, credibility and trustworthiness were discussed as well as the role of the researcher and ethical considerations. The results of the study are detailed in the next chapter.

Chapter 4

Findings

This chapter is intended to provide an overview of the findings from this sequential explanatory mixed method study. This synopsis is assembled from analysis of both the quantitative and qualitative data. In addition, this chapter provides a bridge to chapters five and six, which are written as scholarly articles.

This study sought to answer six research questions:

1. What are the self-reported DAP and DIP scores of early-childhood pre-service teachers in the early part of their student-teaching experience at Brooklyn College?
2. How do pre-service teachers describe (using a graphic organizer) their proposed solution to the discussion-case detailing the disappearance of play in the classroom?
3. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the experience of reading research on play collaboratively and applying it to a discussion-case?
4. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe their views on play in the early childhood classroom, specifically the importance of play?
5. How do pre-service teachers (that score both the highest and lowest on a measure of DAP belief) describe the impact of facilitated research analysis with discussion-case application on their belief in the importance of play in the early childhood classroom, as well as their self-confidence in providing

developmentally appropriate play opportunities in the classroom (even in the face of realistic obstacles)?

6. How does the qualitative data obtained in the second strand of this research help to elaborate upon and explain the data from the initial quantitative strand?

Seventeen pre-service students in the early childhood department at Brooklyn College enrolled in two sections of the student-teaching seminar at Brooklyn College participated in the initial phase of this research, completing the TBS and participating in the experience of research analysis with discussion-case application. During the second phase, eight of the original 17 participants were interviewed. Five key findings emerged; one significant finding arose from the initial quantitative strand, and the remaining five findings developed from the qualitative data.

Discussion of the Quantitative Finding

DAP and DIP as Independent Measures

Although DAP and DIP scores for each participant were calculated for the purpose of determining who would qualify for the second strand of this study, an interesting and unexpected finding emerged from this data analysis. The results suggest that DAP and DIP viewpoints may be somewhat detached from one another, and a teacher can align philosophically with both measures simultaneously. Although the sample size was small because the original intention of the quantitative strand was for participant selection, and this limits the value and generalizability of the quantitative results, this finding is interesting and may serve as a springboard for future research.

Overall, participants exhibited high levels of alignment with beliefs consistent

with DAP. The total DAP score on the TBS can range from 22 to 110. For participants in this study, the total DAP scores ranged from 48 to 109. The mean DAP score was 95.18 with a standard deviation of 15.02. This is a large standard deviation, indicating that the scores were spread apart. However, the participant with the lowest DAP score (of 48) represents an extreme score because her DAP total was more than three standard deviations below the mean ($z = -3.14$). If her DAP score is removed, the mean score increases to 98.13 with a reduced standard deviation of 9.120. The mean response to the DAP statements was 4.33 (with a standard deviation of 0.68294), where 4 aligns with “very important.” This standard deviation indicates that responses were closely clustered around the mean. However, it should be noted that these statements were measured along a 5-point Likert scale, so the range of scores is limited. Participants appeared to affiliate theoretically with DAP. This finding was consistent with prior research, which has found that pre-service teachers, especially towards the end of their preparation programs, have values and beliefs consistent with DAP (File & Gullo, 2002; Goble, Horm, Atanasovm, Williamsom, & Choi, 2015; Kim, 2011; Smith, 1997).

The TBS also measures beliefs consistent with DIP. The total DIP score can range from 14 to 70 for each participant. For participants in this study, the total DIP scores ranged from 23 to 56. The mean DIP score was 41.06 with a standard deviation of 8.920. The mean response to the DIP statements was 2.933 (with a standard deviation of 0.63709), which aligns with a “fairly important” on the 5-point Likert scale. Therefore, participants appeared to have beliefs that were not only aligned with DAP, but with DIP as well, albeit less powerfully.

Correlation analysis of participants’ DAP and DIP scores revealed a non-

significant and positive weak correlation ($n= 17, r = .047, p = .858$). This lack of correlation is interesting because it indicates that, at least for this group of pre-service teachers, DAP and DIP are relatively independent of one another. Developmentally appropriateness is most commonly described as existing along a single continuum from DIP to DAP (Copple & Bredekamp, 2009; Ernest, 2001; Hart et al., 1997) (see Figure 3). In this model, DAP and DIP are positioned on the opposite ends of a single spectrum. Because of the single continuum from DIP to DAP, there is a natural assumption that one can move in a linear fashion from DIP to DAP, so that as DAP increases DIP naturally decreases. However, the results of this study indicate that this type of single continuum characterization may be misleading.

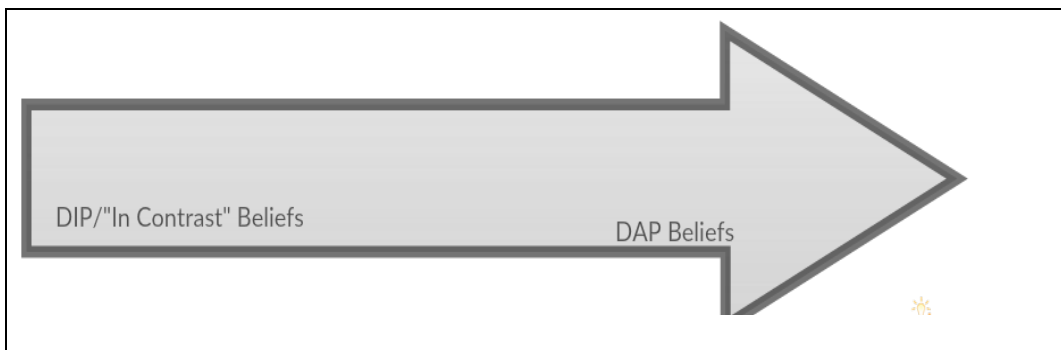


Figure 3. DAP/DIP along a single continuum

Although some participants exhibited a typical DIP/DAP relationship where one is high and the other low, the majority of participants presented a surprising association. They appeared to be aligned philosophically with DAP *and* DIP simultaneously, although more strongly with DAP; in other words, they endorsed both DAP and DIP. This finding

is noteworthy because, although DAP and DIP are commonly considered to exist along a solitary continuum where increased beliefs in DAP imply reduced beliefs in DIP, participants demonstrated that DAP and DIP may be independent of one another for some pre-service teachers. If a teacher presents beliefs that are considered developmentally appropriate, one might logically assume that they would not simultaneously reveal beliefs that are developmentally inappropriate. However, these findings suggest that DAP and DIP viewpoints may be somewhat detached from one another, and a teacher can align with DAP and DIP beliefs simultaneously. Consequently, a strong identification with behaviors associated with DAP does not automatically imply that there is not also alignment with a position that would be considered DIP.

Traditional depictions of DIP and DAP place these measures along a single continuum. Teachers are positioned somewhere along this solitary scale from DIP to DAP based on their beliefs or practices. However, the results of the quantitative phase of this study indicate that this positioning may not always accurately illustrate a teacher's beliefs. DAP and DIP can exist along two separate continuums and not one single gamut from DIP to DAP. Participants with strong mean DAP responses didn't necessarily have weak mean DIP responses. Consequently, rather than a single continuum to illustrate appropriateness, with DIP and DAP on opposite sides of the spectrum, it appears more appropriate to use two separate continuums, one for each scale of appropriateness (see Figure 4). Given the seemingly dichotomous nature of DAP/DIP, it appears more fitting to measure both independently.

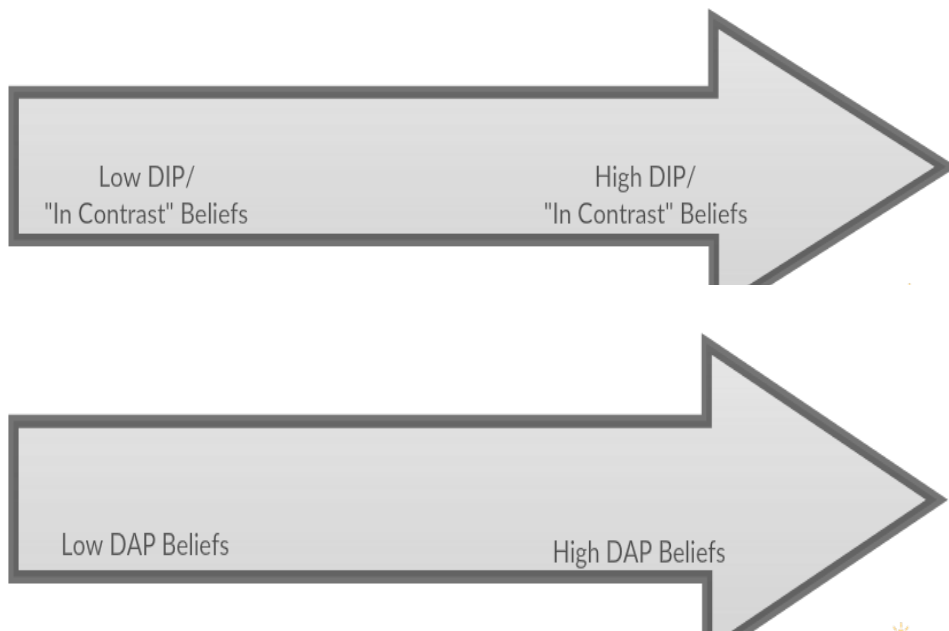


Figure 4. DAP & DIP/in contrast beliefs along two continuums

Discussion of the Qualitative Findings

By coding the graphic organizers that participants completed (in order to propose a solution to the discussion-case dilemma) as well as the participants' interviews, four key findings emerged from the qualitative data gathered in this study. Two of these findings are associated with the impact of the experience and the other two are related to the research experience itself. The two themes connected to the impact of the discussion-case experience were a discrediting of the frequently articulated false dichotomy between playing and learning, and the facilitation of agents of change, specifically teachers with the desire to include play in the early childhood classroom despite the challenges. The two themes associated with the actual experience of analyzing and applying research to a

discussion-case were the facilitation of communities of practice and practicality; students felt this experience was advantageous because it encouraged collaboration among peers, facilitating the creation of a group of individuals that could share ideas and strategies and it provided a practical experience. The major findings not only confirm prior research on the value of collaborative work and discussion-case application, but also add to the research base by indicating that the students' experience, specifically the collaborative and realistic elements, facilitates an accurate understanding of the relationship between playing and learning as well as a commitment to the implementation of playful pedagogy even in the face of considerable challenges.

Dispelling the Play-Learn Dichotomy

All participants indicated an understanding that play is a vital learning tool in the early childhood classroom, articulating a view of playing as a central instrument to achieve developmentally appropriate learning in the classroom, allowing children to develop, learn, and thrive. Therefore, participants recognized that play and learning are not separate concepts in the early childhood classrooms. This is an encouraging finding, because, frequently a false dichotomy is created between playing and learning (Hirsh-Pasek et al., 2009). Such a dichotomy implies that children can either play *or* learn, but can't do both simultaneously. This commonly held misconception that children do not learn through play is counterproductive for the field of early education (Hirsh-Pasek et al., 2009). It is important for teachers to recognize that learning and playing are *not* mutually exclusive, and that, in fact, a great deal of learning occurs through play (Cooney et al., 2000). The false dichotomy between playing and learning does not align with a constructivist approach to teaching where children actively construct their knowledge

through play and social opportunities (NAEYC, 2009). For this reason, it was encouraging to hear participants not only dispel the misrepresentative dichotomy but also articulate an understanding of play as a constructivist activity, specifically an interpretation aligned with Vygotsky's (1930; 1980) social constructivist framework, which propounds that social interactions are important to higher mental function (Bodrova, 1997). After the research experience, students articulated an understanding of play as a constructivist teaching tool that can positively impact children in multiple areas of development.

If early-childhood teachers perceive playing and learning as inextricably linked, they may be more prone to foster play in their future classrooms. This finding indicates that the research experience helped foster an understanding of the purpose of play in the early-childhood classroom, where playing and learning are coupled and where play is seen as a constructivist activity. This finding is therefore promising, suggesting that research analysis with discussion-case application may serve to help halt the disappearance of play by creating teachers who deeply understand the connection between playing and learning and consequently encourage playful learning.

Teachers as Agents of Change

The second finding that emerged from the qualitative strand of this study was the enormous importance that participants want play to have in their future classrooms. During the interviews, participants described this fervent commitment to play, expressing a dedication to facilitating play opportunities when they become teachers. Because play is considered DAP, and pre-service teachers tend to advocate philosophies consistent with

DAP (File & Gullo, 2002; Kim, 2011; Smith, 1997), the intention to incorporate and facilitate play based opportunities is consistent with prior research.

Although participants described a great commitment to learning through play in their future classrooms, they also expressed a realistic understanding of the barriers and obstacles to this intention. They discussed the disappearance of play and the likely barriers to implementing play that align with prior findings (Brashier & Norris, 2008; Lynch, 2015; Miller & Almon, 2009; Nicolopoulou, 2011). The accurate recognition of the expected obstacles to play in the classroom is encouraging because it is imperative that early childhood preparation programs incorporate the challenges from the field that students will face as teachers into their preparation in order to more fully prepare them (Vera & Geneser, 2012).

Because students expressed a deep commitment to play in their future classrooms despite the recognition of the likely obstacles, there appeared to be great determination to change the status quo. Play is rapidly disappearing from early childhood classrooms, so the dedication to its continuance after the discussion-case experience illustrates that participants possess characteristics typical of change agents (Bodrova, 2008). These teachers appear to be dedicated to teaching “against the grain” (Cochran-Smith, 1991, p. 280). They not only expressed a commitment to play in their own future classrooms, but also to helping others understand the purpose and importance of playful learning. Participants expressed a desire to educate parents, the school’s director, and other teachers on the value of play in children’s learning. Prior research indicates that parents, other teachers, and administrators are frequently major barriers to the implementation of play opportunities in the classroom (Lynch, 2015). If this deep commitment to play in the

classroom, including the education of other teachers and administrators, results in teachers being able to overcome likely obstacles, they will be exhibiting what Achinstein and Ogawa (2006) termed “principled resistance” (p. 32). Principled resistance is defined as “overt or covert acts that reject instructional policies, programs, or other efforts to control teachers’ work that undermine or contradict professional principles” (p. 32). Acts of “principled resistance” allow teachers to defend their professional convictions through action despite a culture that seemingly requires the opposite (Paris & Lung, 2008). Many participants appeared to exhibit an agentic stance towards play in the classroom after the research experience, demonstrating “principled resistance” through a strong dedication to play as pedagogy in a climate that is increasingly opposed to this. This agentic position can assist in hindering the loss of play in the early childhood classroom. Hence, this finding indicates something new: Research analysis with discussion-case application offers a tactic for fostering change agents committed to reversing the trend of play disappearance.

Community of Practice

Participants found it advantageous to work in small groups for the research analysis and the discussion-case application. They expressed that dividing the reading among group members, becoming an expert on just one component of the reading, discussing the reading with peers, and working through the discussion-case with others, were all beneficial components of the experience. Specifically, students described the shared experience as valuable because, through discussion, it fostered a deep understanding of the material and concept and ultimately resulted in the feeling of being part of a community of practice. A community of practice has three key components;

members have a shared interest, help one another through discussions and by sharing information, and are practitioners with a shared practice (Wenger, 2006). When participants described the experience of collaboratively analyzing research and applying it to a discussion-case they frequently referenced all three of these components, indicating that they did indeed feel a part of something that can be termed a community of practice.

This finding indicates that the experience of analyzing research and applying it to a discussion-case was beneficial, at least in part, because it allowed students to work collaboratively on the task, sharing the reading and discussing it in such a way that manageability was improved and understanding was increased. This is consistent with prior research on the value of cooperative learning strategies and the role of social interaction in the learning process (Aronson et al., 1978; Bodrova, 1997; Davis, 1993; Halley et al., 2013; Hänze & Berger, 2007; Hausfather, 2001; Perkins & Saris, 2001; Walker & Crogan, 1998). However, this finding also supplements the research on collaborative work. Participants felt included in a community of practice that was dedicated to analyzing and understanding a complex concept and to determining feasible research-based solutions. This finding indicates something new: The communal endeavor of analyzing research and applying it to a realistic scenario seems to be a significant element of the experience and important for its effectiveness as a tool for teacher-educators.

Practicality

Participants felt that the application portion of the activity, which allowed them to use research immediately to work through a dilemma, was advantageous because it

provided a rich experience that was practical in nature. Applying the research to a discussion-case assisted participants with strengthening their understanding of the topic by facilitating deeper thinking and reflection. However, it was not simply the application of research to a discussion-case that was highlighted as a significant component of the experience, but specifically the fact that the discussion-case was realistic in nature. Participants expressed the feeling that the discussion-case provided an opportunity to understand and explore what is actually occurring in the field today and allowed them to examine handling the likely barriers to play in the classroom. Not only is the experience practical because it illuminates likely challenges, but because it also offered students an opportunity to explore solutions. This trial experience of facing and resolving realistic challenges provided students with an encounter they deemed as pragmatic and representative of their futures, and therefore advantageous. In this way, the discussion-case helped facilitate a better understanding of the obstacles for teachers interested in facilitating playful learning opportunities and served as a practice run for tackling these barriers. Consequently, it appears that a fundamental piece of the research experience was the *true-to-life* nature of the discussion-case issue, which allowed a student to feel that they were experiencing a likely practitioner-based scenario that may assist them in the future.

This finding is consistent with prior research on the value of discussion-cases, allowing students to bridge the gap between theory, research, and practice; engage in a remote but genuine classroom experience; make connections to real world and personal experiences; and encourage meaningful discussion (Broudy, 1990; Butler et al., 2006; Erdman, 1983; Floyd & Bodur, 2005; Goldblatt & Smith, 2005; Koc, 2012; Perry &

Power, 2010; Pitton, 2010; Schrader et al., 2003; Sudzina & Kilbane, 1994). However, this finding also contributes something new to the research on discussion-case application. The experience of applying research on the topic of play to a realistic discussion-case about the issues that frequently surround the implementation of play in the classroom is an insight-provoking strategy that can be used with pre-service teachers, helping them to become more confident in and dedicated to reversing the trend of play disappearance.

Integrated Findings

In addition to the distinct quantitative and qualitative findings described in this chapter, the results from both research strands were integrated in order to illuminate how the qualitative data obtained helped to elaborate upon and explain the data from the initial quantitative strand. The quantitative phase was used to identify participants for the qualitative phase, allowing students with the four highest and four lowest total DAP scores who had indicated a willingness to participate in the second phase of the study to be interviewed. It was worthwhile to explore whether there were differences between participants with the higher and lower DAP scores. The key themes that emerged during the qualitative phase of the research were consistent across both groups of participants. That is, the participants with the highest and lowest DAP scores expressed an understanding that playing and learning are not mutually exclusive (false dichotomy of playing and learning) and demonstrated characteristics typical of a change agent. In addition, both groups of participants depicted the research experience similarly, describing it in ways that resembled a community of practice and finding it practical in nature. Therefore, the comparison of students that were considered high

and low DAP responders revealed similarities as opposed to differences.

Conclusion

This chapter has described the key quantitative and qualitative findings for this study. The following two chapters of this dissertation are written as articles for publication, exploring in greater depth two of the important findings from this study. In Chapter five, I explore the commonly held notion of developmental appropriateness along a single continuum from DIP to DAP, and the ways in which some prior studies and the data gathered in this study may challenge this view. The implications of this shift on teacher preparation are explored. This article will be submitted for publication in the *Journal of Early Childhood Teacher Education*. For the article that forms chapter six, which I will submit for publication in the *American Journal of Play*, I will explore, in greater depth, the experience and impact of research analysis with discussion-case application. The implications for this tool in teacher preparation programs are discussed.

Chapter 5

Belief in DAP and DIP as Independent Measures

Because Developmentally appropriate practice (DAP) is considered the fundamental framework of early childhood education (Copple & Bredekamp, 2009), and because despite its value, it is in danger due to inappropriate practices imposed upon young children (Elkind, 2015), early childhood pre-service teachers' beliefs about DAP are of great research interest. Since pre-service teachers are typically not yet in the field working as head teachers, it is unfeasible to measure their practice in terms of developmental appropriateness. Instead, it is more appropriate and reasonable to explore pre-service teachers' beliefs about DAP. Teacher's beliefs are significant because they impact a teacher's behavior in the classroom (Hesiner and Lederberg, 2011; Nelson, 2000; Stuart & Thurlow, 2000; Vartuli, 2005). Vartuli (2005) described beliefs as "the heart of teaching" (p. 76). The purpose of this article is to describe the results of the quantitative phase of a mixed method study where the Teacher Beliefs Scale (TBS) (Charlesworth et al., 1993) was used to assess participants' beliefs about DAP and DIP in the kindergarten classroom. The results indicate that early childhood pre-service teachers possess strong beliefs in DAP. However, unexpectedly, the results also suggest that some pre-service teachers possess both high DAP and DIP beliefs simultaneously.

Developmentally Appropriate Practice

DAP is a teaching framework—grounded in research on how children develop and learn—designed to promote optimal learning and development (Copple & Bredekamp, 2009). DAP guidelines were developed and published by the National Association for the Education of Young Children (NAEYC) in 1987, and have been

updated several times, most recently in 2009 (Bredekamp, 1987; Bredekamp & Copple, 1997; Copple & Bredekamp, 2009). DAP is placed at the very center of early childhood education, serving as its philosophical and theoretical framework (Copple & Bredekamp, 2009).

According to Copple and Bredekamp (2009), DAP has four vital elements: meeting children where they are, allowing them to reach challenging yet achievable goals; teaching that is appropriate to children's age and developmental status, adjusted to children's individual needs, and aligned with the social and cultural context; includes goals and experiences that are appropriate to children's learning and development while also offering enough of a challenge to facilitate progress and interest; informed by an understanding of how children learn and develop, rather than by assumptions. Furthermore, DAP has 12 specific principles that inform practice, including closely interrelated domains of development and learning and the influence of social and cultural contexts on development and learning¹ (Copple & Bredekamp, 2009). DAP is child-

¹ (1) All domains of development and learning are important, and they are closely interrelated. Children's development and learning in one domain influence and are influenced by what takes place in other domains. (2) Many aspects of children's learning and development follow well-documented sequences, with later abilities, skills, and knowledge building on those already acquired. (3) Development and learning proceed at varying rates from child to child, as well as at uneven rates across different areas of a child's individual functioning. (4) Development and learning result from a dynamic and continuous interaction of biological maturation and experience. (5) Early experiences have profound effects, both cumulative and delayed, on a child's development and learning; optimal periods exist for certain types of development and learning to occur. (6) Development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities. (7) Children develop best when they have secure, consistent relationships with responsive adults and opportunities for positive relationships with peers. (8) Development and learning occur in and are influenced by multiple social and cultural contexts. (9) Children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all these kinds of learning. (10) Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence. (11) Development and learning advance when children are challenged to achieve at a level just beyond their current mastery, and also when they have many opportunities to practice newly acquired skills. (12) Children's experiences shape their motivation and approaches to learning; dispositions and behaviors affect their learning and development (Copple & Bredekamp, 2009, p. 11-15).

centered and encourages active learning and the construction of knowledge (Burts et al., 1992; Charlesworth et al., 1993).

There is a great deal of research on the short and long-term effectiveness of DAP, documenting the benefits for children across multiple domains, including social and academic (Bryant, Burchinal, Lau, & Sparling, 1994; Dunn, Beach, & Kontos, 1994; Hart et al., 1997; Huffman & Speer, 2000; Marcon, 1992; Rushton & Larkin, 2001; Schmidt, Burts, Durham, Charlesworth, & Hart, 2007). For example, Huffman and Speer (2000) found that kindergarteners and first graders in an urban setting performed better on letter and word identification as well as applied problem-solving in classrooms that were more developmentally appropriate when compared to those in classrooms with less appropriate practices. Bryant et al. (1994) found that developmentally appropriate preschool classrooms better prepared students cognitively, verbally, and socially. Elkind (2015) recently summarized the research on DAP by stating:

1. DAP is more solidly grounded in philosophy, theory, research, and practice than any other approach to education or any other early education program
2. DAP provides the most integrated curricula of socialization, individualization, work, and play than does any other approach to education
3. DAP offers students the greatest possible combination of learning experiences (social, natural, personal, and unconscious) than any other approach to education (p. 5)

Accordingly, Elkind (2015) declared DAP superior over other early childhood educational practices. It is for all of these compelling reasons that DAP is deemed the cornerstone of early childhood education.

DAP and DIP

DAP was originally contrasted with Developmentally Inappropriate Practices (DIP) (Bredekamp, 1987; Bredekamp & Copple, 1997). In this model, DAP and DIP were positioned on the opposite ends of a single spectrum (Bredekamp & Copple, 1997; Ernest, 2001; Hart et al., 1997). DIP is teacher-directed, treats all students the same, and emphasizes rote learning and the mastering of discrete skills (Bredekamp & Copple, 1997; Charlesworth et al., 1993; Charlesworth, 1998). The most recent DAP guidelines no longer include the term DIP and have replaced it with “in contrast” (Copple & Bredekamp, 2009). This change in terminology was made because Copple and Bredekamp (2009) believed:

It would be overstating to call every example in the right-hand column a wrong or bad practice. Certainly some of them are harmful; but some practices are merely mediocre or less than optimal. Moreover, as differences in cultures can cause people to view the same practice quite differently, it seemed presumptuous to label a practice as inappropriate simply because those who favor it may not be the majority (p. xi)

Although the term DIP is no longer used in the guidelines, DIP, or the word inappropriate to describe particular teacher beliefs and behaviors, is still widely used in the field, as demonstrated by research published after 2009 (examples include Abu-Jaber, et al., 2010; Demircan, & Erden, 2015; Ernest, 2011; Han & Neuharth-Pritchett, 2010; Heisner & Lederberg, 2011; Kim, 2011; Liu & Lee, 2013; Rentzou & Sakellariou, 2011; Sakellariou & Konstantina, 2012). The beliefs and behaviors that were once labeled as DIP and are now described in the “in contrast” section of the DAP framework (Copple & Bredekamp,

2009) and viewed in opposition to DAP. As Hesiner and Lederberg (2011) explained, “the field has moved toward a less judgmental phrase to describe those practices that are not consistent with the DAP philosophy” (p. 228). In addition to DIP and “in contrast,” other terms are frequently used to describe inappropriate practice, including didactic, teacher-directed, highly-perspective, test prep oriented, and teacher-centered (Bassok, Lathem, & Rorem, 2015; Miller & Almon, 2009; Parker & Neuharth-Pritchett, 2006). As Ernest (2011) explained, “there is a general consensus about the appropriateness of DAP and inappropriateness of the items provided as inappropriate exemplars” (p. 233). Therefore, developmentally appropriateness is still commonly described as existing along a single continuum from DIP or “in contrast” practices (or some other comparable descriptor) to DAP (Copple & Bredekamp, 2009; Ernest, 2001; Hart et al., 1997). Because of this single continuum model, there is a natural assumption that one can move in a linear fashion from left to right, so that as DAP and belief in DAP increases DIP/”in contrast” practices and beliefs naturally decrease. However, the results of this study indicate that this type of single continuum characterization may be misleading.

The purpose of this article is to describe the results of the first strand of a mixed method study. The results suggest that DAP and DIP viewpoints may be somewhat detached from one another, meaning a teacher can value both types of practices simultaneously. Although the sample size was small (the original intention of the quantitative strand was for participant selection), thus limiting the generalizability of the quantitative results, this finding is exciting because it suggests a different model for examining and describing pre-service teachers’ DAP and DIP beliefs, potentially impacting how we prepare teachers, and may serve as a springboard for future research.

Methods

This article describes the results of the initial phase of a mixed method study where the Teacher Beliefs Scale (TBS) (Charlesworth et al., 1993) was used to assess participants' beliefs about DAP and DIP in the kindergarten classroom. The original mixed methods study used a design variant of the explanatory design– the participation selection model– where the quantitative information was used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano, 2007). Specifically, the quantitative survey data lead to the selection of participants with the strongest and weakest endorsements of DAP for qualitative interviews. The purpose of the sequential explanatory mixed method study was to examine the impact and experience of participating in facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom.

Participants and Procedure

Seventeen early childhood pre-service student-teachers enrolled in two different sections of Student-Teaching Seminar, at Brooklyn College, in Brooklyn, New York, during the Fall 2015 semester participated in this study. The participants were just beginning their student-teaching experiences when the survey was administered. Student-Teaching Seminar is a 15-week graduate and undergraduate seminar for pre-service early childhood teachers concurrently enrolled in full-time student teaching in a local public or private school setting. Participants were selected through the purposive sampling of two

intact classrooms. All students present during the class session agreed to participate. This was an appropriate sampling method because it allowed for the selecting of individuals in the best position to answer the research questions (Gentles, Charles, Ploeg, McKibbin, 2015). Fourteen of the 17 participants were undergraduate students, and the remaining three were graduate students. All of the participants were female.

The TBS was administered to all participants, in-person, at the beginning of a student-teaching seminar. Completion of the survey was purely voluntary. Participants provided verbal informed consent for the data to be used in this study prior to completing the survey. Each participant was provided with a research code, and this code was placed on the TBS to identify participants.

The purpose of the initial quantitative phase was to gather information about the importance that participants place on DAP. This information was intended to guide the purposive sampling of the participants for the qualitative phase, and not intended to make statistical and analytical determinations (Onwuegbuzie & Collins, 2007).

Quantitative Instrument

In order to assess participants' beliefs about DAP in the early childhood classroom the TBS was administered. The TBS, originally created by Charlesworth et al. (1991) and updated by Charlesworth et al. (1993), was selected because its purpose is to determine early childhood teachers' DAP beliefs. It was created using DAP as outlined by the National Association for the Education of Young Children (NAEYC) policy statement. TBS consists of a total of thirty-seven items, and all but one are measured on a 5-point Likert scale. There is one question that asks participants to rank the amount of influence that six factors (parents, parish or school, principal, yourself, state regulations,

and other teachers) have on planning and implementing. The other 36 questions ask participants to respond to developmentally appropriate and inappropriate beliefs. For example, question 12 asks, “It is _____ for kindergarteners to learn through active exploration.” Participants respond on a 5-point scale from 1 (not important at all) to 5 (extremely important). TBS includes 22 statements that measure belief in DAP, and 14 statements that measure belief in DIP. DIP statements are undesired practices or practices that would be considered incongruent with DAP. The statements can be grouped into six categories: appropriate social, appropriate individualization, appropriate literacy activities, appropriate integrated curriculum beliefs, inappropriate activities and materials, and inappropriate structure. Participants’ responses can be grouped according to DAP and DIP. Because of the Likert scale, the questionnaire provides a picture of the beliefs of teachers using a degree-of-importance rating scale, revealing the relative value of beliefs (Charlesworth et al., 1993). Using the TBS, a total DAP score can be calculated ranging from 22 to 110, and a total DIP score can be calculated ranging from 14 to 70.

Validity for the TBS was established by Charlesworth et al. (1991; 1993) through observational studies comparing early childhood teachers’ responses to the questions and classroom observations; observational ratings were highly congruent with TBS scores. Six reliable factors (four DAP and two DIP) were determined by statistical analysis. Cronbach’s alphas were performed to measure internal consistency for these factors: appropriate social item ($\alpha = .77$), appropriate individualization ($\alpha = .70$), appropriate literacy activities ($\alpha = .60$), appropriate integrated curriculum beliefs ($\alpha = .66$), inappropriate activities and materials ($\alpha = .84$), and inappropriate structure ($\alpha = .58$).

Result

Total DAP and DIP Scores

The total DAP score for each participant was calculated by adding together the responses to the statements that were considered DAP. The total DAP score can range from 22 to 110. For participants in this study, the total DAP score ranged from 48 to 109. The mean DAP score was 95.18 with a standard deviation of 15.02 (see Table 1). This is a large standard deviation, indicating that the scores were spread apart. However, the participant with the lowest DAP score (of 48) represents an extreme score because her DAP total was more than three standard deviations below the mean ($z = -3.14$). If her DAP score is removed, the mean score increases to 98.13 with a reduced standard deviation of 9.120. A Cronbach's alpha was performed to measure internal consistency for DAP ($\alpha = .947$). This value indicates high internal consistency and suggests that the statements that are intended to measure belief in DAP evaluated the same construct (Cronbach, 1951).

The total DIP score for each participant was also calculated by adding all of the responses to the DIP statements. This number can range from 14 to 70. For participants in this study, the total DIP score ranged from 23 to 56. The mean DIP score was 41.06 with a standard deviation of 8.920 (see Table 1). A Cronbach's alpha was performed to measure internal consistency for DIP ($\alpha = .859$). This value indicates that the statements intended to measure belief in DIP do assess the same construct (Cronbach, 1951).

Table 1

Total DAP and DIP Mean Scores and Standard Deviations

	N	Minimum	Maximum	Mean	Standard Deviation
DAP	17	48	109	95.18	15.026
DIP	17	23	56	41.06	8.920

Mean DAP and DIP Responses

In addition, the mean response score (along a 5-point Likert scale) to the DAP and DIP statements for each participant was calculated as well as the mean DAP and DIP response across all participants. A comparison of the mean DAP and DIP response for each participant is displayed in a scatterplot (Figure 5). The mean score on individual DAP statements was 4.33 (with a standard deviation of 0.68294), where 4 aligns with “very important.” This standard deviation indicates that responses were closely clustered around the mean. However, it should be noted that these statements were measured along a 5-point Likert scale, so the range of scores was limited. The mean response to the DIP statements was 2.933 (with a standard deviation of 0.63709), which aligns with “fairly important” on the 5-point Likert scale. Therefore, participants appeared to have beliefs that were not only aligned with DAP but with DIP as well, albeit less powerfully.

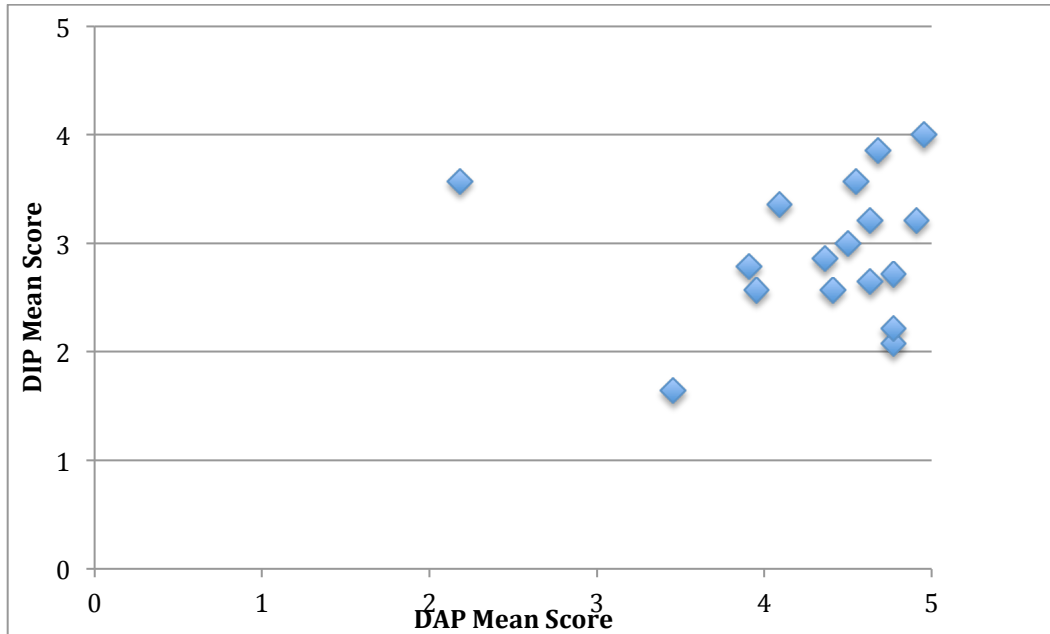


Figure 5: A comparison of participants' mean DAP and DIP scores

Comparing DAP and DIP Scores

Interestingly, of the ten participants with a mean response to the DAP statements in the “extremely important” category (signifying that they found the DAP statements to be extremely important in the classroom), none had a mean response to the DIP statements in the “not important at all” category, and only two had a mean response to the DIP statements in the “not very important” category. The two participants with the DAP mean response in the “extremely important” category with a corresponding DIP mean response in the “not very important” category represent a somewhat predictable pattern where a teacher with a strong endorsement of DAP does not simultaneously sanction DIP. These two participants align with the widely held notion of developmentally

appropriateness along a single continuum from DIP to DAP. Both participants appear to strongly value behaviors rooted in DAP with very little evidence of DIP endorsement. There were two additional participants with this predictable pattern, fitting the single range model of appropriateness from DIP to DAP. One of these participants had a mean DAP response in the “not very important” category with a corresponding DIP mean response in the “very important” category, indicating a high DIP endorsement with a predictably low DAP endorsement. Similarly, the other participant had a mean DAP response that fell into the category of “fairly important” with a DIP mean in the “not very important category” indicating the endorsement of DAP without the accompanying support of DIP.

Of the other eight participants with a mean response to the DAP statements in the “extremely important” category, six had a mean response to the DIP statements in the “fairly important” category and two had a mean response to the DIP statements in the “very important” category. Therefore, only two of the nine participants with the highest mean DAP response had simultaneously low mean DIP scores; the other eight had strong DAP and DIP scores. Thus, only two participants displayed the typical DAP/DIP relationship captured by the single range model, where developmentally appropriateness is described as existing along a single continuum from DIP or “in contrast” practices (or some other comparable descriptor) to DAP and where one is endorsed and one is not (Copple & Bredekamp, 2009; Ernest, 2001; Hart et al., 1997).

The relationship between participants’ beliefs about DAP and DIP was assessed using a Pearson Product Correlation with total DAP and DIP scores. This information is displayed in Table 2. Correlation analysis of participants’ DAP and DIP scores revealed a

non-significant and positive weak correlation ($n= 17, r = .047, p = .858$). This lack of correlation is interesting because it indicates that, at least for this group of pre-service teachers, DAP and DIP are relatively independent of one another. A strong DAP score did not imply a weak DIP score or vice versa, as one might assume based on the single continuum model.

Table 2

Correlation of Total DAP and DIP Scores

		DAP	DIP
DAP	Pearson Correlation	1	.047
	Sig. (2-tailed)		.858
	N	17	17
DIP	Pearson Correlation	.047	1
	Sig. (2-tailed)	.858	
	N	17	17

Discussion and Implications

Although DAP and DIP belief scores for each participant were calculated for the purpose of determining who would qualify for the second strand of this study, an interesting and unexpected finding emerged from this data analysis. The results suggest that DAP and DIP viewpoints may be somewhat detached from one another, and a teacher can value both simultaneously. Although the sample size was small because the original intention of the quantitative strand was for participant selection, limiting the value and generalizability of the quantitative results, this finding is noteworthy and may

serve as a catalyst for future research.

Based on their overall DAP scores and mean DAP response score, most participants appeared to value DAP. This finding was consistent with prior research, which has found that pre-service teachers have values and beliefs consistent with DAP (File & Gullo, 2002; Goble et al., 2015; Kim, 2011; Smith, 1997). Although four participants exhibited an expected DIP/DAP relationship where one is high and the other low, many participants presented a surprising association. Eight participants with a mean DAP response in the “extremely important” category had a corresponding DIP mean response in either the “fairly important” or the “very important” category. Similarly, five participants exhibited a mean DAP response in the “very important” category and a simultaneous mean DIP response that fell in the “fairly important” category. These participants appeared to possess beliefs in DAP *and* DIP simultaneously, albeit more strongly with DAP. They endorsed both DAP and DIP concurrently.

This finding is important because, although DAP and DIP are commonly considered to exist along a solitary continuum where increased beliefs in DAP imply reduced beliefs in DIP, participants in this study demonstrated that DAP and DIP may be independent of one another for some pre-service teachers. If a teacher presents beliefs that are considered developmentally appropriate (DAP), one might logically assume that they would *not* simultaneously reveal beliefs that are developmentally inappropriate (DIP). However, these findings suggest that DAP and DIP viewpoints may be somewhat detached from one another, and a teacher can endorse both simultaneously.

Consequently, an identification with beliefs aligned with DAP does not automatically imply that there is not also alignment with beliefs that would also be

considered DIP. For example, many participants endorsed the teaching of separate subjects (DIP) and dramatic play (DAP) in a kindergarten classroom. Question seven of the TBS statement refers to the appropriateness of discreet and separate subjects in the kindergarten classroom, a DIP belief as measured by the TBS. Participants were asked to respond to the following statement: “It is _____ that each curriculum area be taught as separate subjects at separate times” along the 5 point Likert scale. This statement aligns with Copple and Bredekamp’s (2009) guidelines under the “in contrast” section of DAP, formerly known as DIP:

Children’s learning is seen as occurring in separate content areas, and times are set aside to teach each subject without integration. Teachers fail to connect curriculum topics in ways that are meaningful to children. As a result, learning is often fragmented, and children are less likely to generalize ideas and apply them across content areas (p. 230).

Another TBS statement refers to a dramatic play in the kindergarten classroom, a practice considered DAP. This aligns with Copple and Bredekamp’s (2009) DAP guidelines for kindergarten:

Play, particularly complex dramatic make-believe play, is a crucial vehicle allowing children to develop and practice self-regulation skills. Such play allows children to gain understanding of their emotions, as well as the feelings of others, as they act out situations that induce strong emotion and resolve those feelings. It also provides practice in remaining within a prescribed role and play scenario and in establishing, negotiations, and following their own rules- and thus it promotes self-regulation skills more powerfully than adult-directed play. (p. 200).

Because these two practices (dividing kindergarten content into separate subject matter and engaging in dramatic play) are located at different ends of the single developmental appropriateness continuum, we might not expect a participant to endorse both. However, three of the participants that considered dramatic play “extremely important” and one of the participants that considered dramatic play “very important” also found the division of curriculum into separate subjects important; one indicated it was “extremely important” while two indicated it was “very important” and one felt it was “fairly important.”

Although this finding was unexpected, there is some prior research to support the notion of DAP and DIP as detached constructs. However, the finding was surprising because the single continuum model dominates the literature and thinking of the early childhood field. The single continuum model implies a negative correlation between DAP and DIP, because as one increases the other decreases. However, Buchanan, Burts, Bidner, White, and Charlesworth (1998) found that the correlation between DAP and DIP beliefs was positive and relatively small (.04). This finding is inconsistent with the single continuum model and is more aligned with the findings of this study. In fact, Craig Hart (personal communication, June 20, 2015), one of the original developers of the TBS, stated:

Given the low correlations between DAP and DIP, whether for beliefs, activities, or their combination, it would not be justifiable to combine DAP and DIP in an attempt to create a bipolar measure ranging from teacher beliefs and/or instructional activities that are highly appropriate at one end of the continuum to beliefs and activities that are highly inappropriate at the other end. DIP and DAP are nearly orthogonal separate dimensions that should be operationalized

independently.

Similarly, other researchers have found that teachers use a mix of both developmentally and inappropriate practices in a single classroom, signifying that both can exist simultaneously (Charlesworth, Hart, Burts, De Wolf, 1993; Parker & Neuharth-Pritchett, 2006).

Accordingly, support for and belief in behaviors associated with DAP does not necessarily suggest that there is not also belief in behaviors categorized as DIP. Perhaps pre-service teachers are most susceptible to this type of thinking– the endorsement of two seemingly contradictory constructs– because they are not yet seasoned educators. They are still finding their way and developing their teaching beliefs. Consequently, rather than a single continuum to illustrate appropriateness, with DIP/”in contrast” beliefs and DAP beliefs on opposite sides of the spectrum, it appears more suitable to use two separate ranges, one for each scale of appropriateness. If one attempts to place a pre-service teacher with both strong DAP beliefs and strong DIP beliefs on the single continuum model of appropriateness, an interesting dilemma arises. If the teacher is placed near the right edge of the continuum, the placement accurately reflects the strong DAP beliefs. However, such a placement does not tell the complete story because the relatively strong and concurrent DIP beliefs are ignored. However, if a teacher with both strong DAP beliefs and strong DIP beliefs is placed in the middle of the continuum in order to illustrate that although DAP was high, DIP was high as well, and these findings together yield a sort of balanced middle-of-the road belief system, the placement is equally misleading; the middle area of the single continuum would imply that neither the DAP nor the DIP beliefs are as strong as they actually are. For a pre-service teacher with both

strong DAP beliefs and strong DIP beliefs, placement on the single continuum model of appropriateness fails to fully capture their beliefs. Given the seemingly dichotomous nature of DAP/DIP beliefs, it appears more fitting to measure and record both independently, on two distinct scales, allowing the concurrently strong beliefs to be accurately portrayed.

Implications for Teacher Preparation

The results of this study support prior findings that pre-service teachers have strong beliefs consistent with DAP (File & Gullo, 2002; Goble et al., 2015; Kim, 2011; Smith, 1997). However, unexpectedly, although participants expressed stronger DAP than DIP beliefs, many participants with strong DAP beliefs also possessed strong beliefs in DIP. If teacher-educators subscribe to the prevalent single continuum model of developmental appropriateness, there may be the false assumption that by teaching students about DAP they are reducing the likelihood that future teachers will endorse DIP or “in contrast” practices. The supposition is that by increasing beliefs in DAP, beliefs in DIP/”in contrast” practices may automatically be reduced. However, this study indicates that a prospective teacher may possess both strong beliefs in DIP and DAP simultaneously. Therefore, it may be important for teacher-educators to not only work towards the increasing of pre-service teachers’ beliefs in DAP, but also the purposeful challenging and reducing of DIP/”in contrast” beliefs. Beliefs in DIP or “in contrast” practices are not simply the absence of DAP just as beliefs in DAP are not simply the absence of beliefs in DIP or “in contrast” practices.

Future Research

In addition to the need for a larger sample size, it would be advisable for future studies to use follow-up data collection methods with participants, such as interviews. This would allow participants to explain their responses to the survey, providing a fuller understanding of their DAP and DIP beliefs. It would also be interesting to compare pre-service teachers' DAP and DIP beliefs with teachers already in the field. The simultaneously strong belief in DAP and DIP may also be present in practicing teachers.

Although, it is not unusual to measure and explore teachers' DAP beliefs, believing them to be valuable (Hesiner and Lederberg, 2011; Jones, Burts, Buchanan, Jambunathan, 2000; Nelson, 2000; Stuart & Thurlow, 2000; Vartuli, 2005), future research could explore how these beliefs translate into practice. Because we know that teachers' beliefs are not always consistent with classroom practice (for example, McMullen, 1999; Parker & Neuharth-Pritchett, 2006), it is appropriate to explore whether the single or altered continuum model might better measure not only DAP and DIP beliefs but actual practices.

Finally, the revised version of TBS from 1993 was utilized in this study. Although this instrument has been used many times and has been shown to operationalize the constructs of DAP and DIP (Charlesworth et al., 1993; Hegde & Cassidy, 2009; Kim, 2011; Kim, Kim, & Maslak, 2005; McMullen et al., 2006; Wang, Elicker, McMullen, Mao, 2008; Vartuli & Rohs, 2009), it may make sense to research or create a questionnaire to assess beliefs in DAP and "in contrast" practices that is based on the newest DAP guidelines prepared by Copple and Bredekamp's (2009).

Limitations

Several limitations must impact the interpretation of this study's major finding, including a small sample size and the use of a brief self-report instrument. This research used a small sample because the original purpose of the quantitative strand was for participant selection. Furthermore, the participants were all from one teacher education program and selected through purposeful sampling. As a result, the results are not generalizable to other pre-service teachers. However, generalizability was not the original intention of the study. The results can serve as a springboard for future research, which can explore generalizability to other programs and institutions.

Teachers' beliefs in DAP and DIP were measured with a self-reporting instrument that used a 5-point Likert scale. Such an instrument, while valuable, has many limitations. Participants couldn't explain their responses in-depth, limiting the researcher's understanding of the participants' responses and beliefs. For example, a participant may have had a response that was context-dependent, but she was forced to select a single box on the survey. Additionally, the survey asked participants about attitudes and beliefs, which are not necessarily precise or consistent, and therefore measurement error is a concern and a potential limitation of my instrument (Salant & Dillman, 1994). Furthermore, participants may have, in some cases, selected responses they thought were more desired by the researcher because they aligned with the program's values, without truly assessing and reporting their own level of belief. This did not appear to be a widespread issue because of the many participants who exhibited strong DIP responses. However, it is possible that DAP responses were elevated due to this limitation.

Conclusion

The current study indicates that belief in DAP and DIP/”in contrast” practices may be independent of one another for some pre-service teachers. There is value in exploring pre-service beliefs about DAP given the research-based benefits of DAP and because beliefs impact classroom behavior (Stuart & Thurlow, 2000). Pajares (1992) explains, “Attention to the beliefs of teachers and teacher candidates can inform educational practice in ways that prevailing research agendas have not and cannot” (p. 329). Specifically, beliefs in DAP are worthy of further exploration because teachers who “walked the walk” of DAP and not just “talked the talk,” as McMullen (1999) described it, were firm believers in the practice. In fact, resolute belief in the practice was the greatest predictor of teacher agency (McMullen, 1999). Although a single continuum model of developmentally appropriateness is commonly used, for a pre-service teacher with both strong DAP and DIP beliefs, placement on such a continuum fails to fully capture their viewpoints. Therefore, further research is recommended to explore whether a new continuum model might better capture beliefs about developmental appropriateness.

Chapter 6

Reversing the Disappearance of Play in the Early-Childhood Classroom

Despite persuasive research demonstrating the importance of play in early childhood education, there is a problematic trend in early childhood classrooms of increased academics and high-stakes test preparation, with less opportunity for play (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011). Hirsh-Pasek et al. (2009) called play the new “four letter word” (p. 3) and Elkind (1987) contended that there is a “boom in miseducation” in early childhood education (p. 9). In spite of the fact that research reveals that playful learning is appropriate *and* effective in the early childhood years, direct instruction pedagogy has supplanted playful learning, even in the earliest years of education, largely due to pressure to promote academic achievement (Reed et al., 2012). Because play is a vital component of effectual early childhood education programs (NAEYC, 2009), this tendency represents a worrisome movement.

The purpose of this article is to describe the qualitative phase of a sequential explanatory mixed method study, which sought to examine the impact and experience of participating in facilitated research analysis with discussion-case application for early childhood pre-service teachers. The discussion case was used to expand and inform participants’ knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. Because previous research has determined that play is a vital component of developmentally appropriate practice in early childhood education due to its significant role in children’s learning and development (Bergen 2002; Branscombe, 1991; Copple & Bredekamp & 2009; Galeano, 2011; Goldhaber, 1994;

Hall, 1991; Hamlin & Wisneski, 2012; Han et al., 2010; Mielonen & Paterson, 2009; Morrow & Rand, 1991; Owocki, 1999; Pickett, 2005; Roskos & Christie, 2011; Sarama & Clements, 2009; Schrader, 1991; Siegler & Ramani, 2008), and play continues to disappear from the classroom (Brashier & Norris, 2008; Elkind, 1987; Hirsh-Pasek et al., 2009; Lynch, 2015; Nicolopoulou, 2011; Reed et al., 2012), this research sought to explore a potential strategy for assisting future-teachers develop their ability to understand and apply the research on play. Given the general trend towards direct instruction, traditional academics, and testing in early childhood with less opportunity for play (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011), the ability to analyze research and apply it to the classroom is a skill needed more urgently than ever. Teacher education is a widely researched topic; however, the role of teacher education programs in preparing pre-service teachers to successfully facilitate play in the classroom, specifically with the barriers created by the current anti-play climate, has not been studied in depth. Therefore, it was worthwhile to investigate the impact on pre-service teachers of analyzing relevant research on play and applying this research to a realistic scenario about the disappearance of play in a kindergarten classroom.

Play and Children's Learning and Development

Play serves to enhance children's academic, social, and emotional skills, and engages and motivates children in a manner not achieved by didactic learning (Hirsh-Pasek et al., 2009). Play, especially when teachers scaffold and facilitate it, serves a significant role in developing children's cognitive and academic skills, including building literacy skills (Bergen 2002; Branscombe, 1991; Eberle, 2011; Galeano, 2011; Hall, 1991; Han et al., 2010; Mielonen & Paterson, 2009; Morrow & Rand, 1991; Owocki,

1999; Pickett, 2005; Roskos & Christie, 2011; Schrader, 1991) and building math and science skills (Bergen, 2009; Goldhaber, 1994; Hamlin & Wisneski, 2012; Sarama & Clements, 2009; Siegler & Ramani, 2008). Play also serves an important role in building skills important to working cooperatively with others in socially appropriate ways (Eberle, 2011; Gilliam, 2005). Additionally, play helps children develop learning behaviors, executive functioning skills, working memory, problem-solving abilities, and flexibility of thought; these skills, while important on their own, also improve academic achievement (Diamond et al., 2007; Ginsburg, 2007).

Guided play is an especially valuable approach to foster literacy in the early childhood classroom (Fisher et al., 2010; Weisberg et al., 2013b). Guided play, where adults scaffold the learning, is ideal for developing language skills (Weisberg et al., 2013b). Massey (2012) found that by connecting classroom reading with guided play, students experienced enhanced vocabulary and language skills. Similarly, Nicolopoulou et al. (2006) discovered that children who acted out their stories— a playful and guided dramatic activity— created more complex written pieces. The language of children improves and expands through playful interactions with adults and peers (Hirsh-Pasek et al., 2003; Zigler & Bishop-Josef, 2013). Research indicates that play fosters literacy skills in children by creating a setting where literacy skills and activities are promoted; by building a connection between oral and written expression; and by providing greater opportunities for teachers to teach literacy (Roskos & Christie, 2004).

Han et al. (2010) found that when play was added, vocabulary instruction in a preschool classroom was more effective. They tested two different vocabulary-teaching strategies; one group of children received explicit vocabulary instruction while the other

group received shortened explicit vocabulary instruction and a play session. Participants who received explicit instruction with play demonstrated greater growth in receptive and expressive vocabulary measures than the children who received just explicit vocabulary instruction. It appears that less direct instruction was actually more effective in building this literacy skill when guided play was added to the program. It is research findings like this that prompted Weisberg et al. (2013a) to suggest that scaffolded and teacher-supported play should replace much of the drill and direct instruction typical of early childhood classrooms today. Play offers the early-childhood teacher an effective strategy for language and literacy development.

Play also helps to develop children's mathematical and scientific thinking and skills (Bergen, 2009; Goldhaber, 1994; Hamlin & Wisneski, 2012; Sarama & Clements, 2009; Siegler & Ramani, 2008). Young children naturally incorporate a great deal of mathematics into their play (Ginsburg et al., 2008; Sarama & Clements, 2009; Seo & Ginsburg, 2004). With guided play, teachers can foster and extend these moments into opportunities to encourage the acquisition of mathematical understanding (Ginsburg et al., 2008). Sarama & Clements (2009) argued that because young children engage in play, which naturally incorporates mathematics, the teacher should become skilled at using these natural opportunities to generate even more meaningful experiences

Research indicates that teachers play a central role in facilitating appropriate play opportunities for students (Bodrova & Leong, 2012; Hamlin, & Wisneski, 2012; Mielonen & Paterson, 2009; Sarama & Clements, 2009; Test et al., 2010; Weisberg et al., 2013a). Guided play demands a lot of a teacher because it is "subtly directive, embedding new learning into meaningful contexts that correspond with children's prior knowledge"

(Hirsh-Pasek et al., 2009, p. 27). Therefore, pre-service teachers require the opportunity to learn about not only the value of play, but their important role in facilitating it.

The Disappearance of Play from Early Childhood Classrooms

Despite the research on the benefits of play, and the research on the most effective way for teachers to facilitate play, play is rapidly disappearing from early childhood classrooms (Brashier & Norris, 2008; Nicolopoulou, 2011). Brashier and Norris (2008) contend, "Due to external pressures, teachers often conform to standards they realize are not the most developmentally appropriate for children, which results in the limiting of play" (p. 30). In many classrooms, learning through play is being replaced by direct instruction, which can lead to short term gains that are neither as profound nor lasting as the learning gains achieved through playful learning (Alifieri et al., 2010; Almon & Miller, 2011).

Research indicates that the disappearance of play can be attributed to multiple sources. There is a general misconception about brain development that leads many parents, and even those in the field, to feel that young children must learn academics at an early age if they are going to be successful in school in their later years (Hirsh-Pasek et al., 2009; Reed et al., 2012). Unfortunately, even well informed educators frequently feel pressured to acquiesce to parents' requests, even when they do not agree (Hirsh-Pasek et al., 2009; Reed et al., 2012). However, the pressure is not exclusively attributed to parents. In a recent study, Lynch (2015) found that kindergarten teachers, even those that wanted to facilitate and implement play-based learning in their classrooms, felt administrator pressure to reduce or eliminate play, describing themselves as "battling their administrations" (p. 361). These same kindergarten teachers also felt the pressure to

eschew play from fellow teachers, describing this as “feeling they are looked down upon by other teachers in their schools” when using play as a learning tool (p. 361).

Furthermore, the national focus on the achievement gap has led to the demand for increased academics and less play in the early childhood classroom (Hirsh-Pasek et al., 2009; Reed et al., 2012). The achievement gap, in part, refers to the fact that children from environments that are categorized as underprivileged are consistently less prepared for school than their middle-class counterparts, and these disparities in academic success continue (Hirsh-Pasek et al., 2009). Because of the recognized achievement gap, there is a desire to actively and immediately address it, and the reduction of play to accommodate the increase of direct-instruction in early-childhood classrooms represents a tangible shift meant to reduce and eventually eliminate this gap (Hirsh-Pasek et al.; Reed et al., 2012). However, research has revealed that the curriculum goals that can reduce the achievement gap can be met more successfully through playful pedagogy than through direct instruction. Therefore, in a well-intentioned attempt to lessen the achievement gap, children will actually be learning less as play is continually removed from the classroom and replaced by direct instruction (Jones & Reynolds, 2011). Based on an effort to provide children with strong academic proficiencies, especially in the areas of literacy and mathematics, and with the belief that play will obstruct such a goal and didactic learning will lead to stronger academic outcomes, play is becoming less commonplace in classrooms (Hirsh-Pasek et al., 2009).

Pre-Service Teacher Preparation

Despite research on the benefits of play and the crucial role of teachers in facilitating play, it is disappearing from early childhood classrooms (Brashier & Norris,

2008; Nicolopoulou, 2011). Early-childhood teachers are commonly aware that this shift away from play is developmentally inappropriate, but they feel great pressure to bend to the trend (Brashier & Norris, 2008; Lynch, 2015; Parker & Neuharth-Pritchett, 2006). The student-teaching experience and the accompanying seminar represent an opportunity for pre-service teachers to explore and connect theory, pedagogy, and practice. However, it is commonplace for teacher-candidates to witness limited developmentally appropriate practice (DAP) and guided play in their field experiences, even when the cooperating-teachers espouses play as a learning tool (Vera & Geneser, 2012). Without cooperating-teachers as models, pre-service teachers may benefit from an alternative opportunity to learn about playful pedagogy. When deprived of models, pre-service teachers become challenged in achieving and managing successful play opportunities in their classroom (Vera & Geneser, 2012). This study allowed pre-service teachers to learn about playful pedagogy through the application of research to a realistic discussion-case. Because applying research to a discussion-case can serve as a detailed learning experience around play, participants may experience reduced apprehension about implementing guided play, despite the fact that their cooperating-teachers may not consistently model appropriate play pedagogy (Vera & Geneser, 2012).

Methods

This study is the qualitative phase of a sequential explanatory mixed methods study that examined the impact and experience of participating in facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the

classroom, even in the face of obstacles. The mixed methods study used a variant of the explanatory design– the participation selection model– where the quantitative information was used to identify and purposefully select the participants for the qualitative component of the study (Creswell & Plano Clark, 2007).

In the first phase, attitudinal data was collected before the treatment from a total of seventeen participants (Patton, 1991). Specifically, during the initial phase of this study, in order to assess participants beliefs about DAP in the early childhood classroom, the Teacher Beliefs Scale (TBS) was administered (Resnick, in preparation). The TBS, originally created by Charlesworth et al. (1991) and updated by Charlesworth et al. (1993), was selected because its purpose is to determine early childhood teachers' DAP and developmentally inappropriate (DIP) beliefs. I was interested in exploring the discussion-case experience with participants who self-reported the strongest and weakest beliefs in DAP. Because play is considered an important component of DAP (Coppie & Bredekamp, 2009), I wanted to look at the outermost boundaries of this continuum to explore how those at both ends would describe the impact of the discussion case exercise on their views. I proposed that by looking specifically at the extremes (highest and lowest DAP scores), the impact of the experience might become clearer. In this initial quantitative phase of the research, a total DAP and DIP score for each participant was calculated. Although the intention of the quantitative survey data was to determine participants for the qualitative interviews based upon DAP scores, I also discovered an interesting result. Though participants possessed strong beliefs in DAP, unexpectedly, they also frequently possessed high DIP beliefs simultaneously.

In the quantitative phase, the total DAP scores for every participant, as determined by the TBS, were ranked in descending order. The students with the four highest and four lowest total DAP scores who had indicated a willingness to participate in the second phase of the study were selected and interviewed for the second strand of the study, which is described here. In this phase, I sought to provide pre-service teachers with the strongest and weakest beliefs in DAP an opportunity to describe their feelings about and comfort with play in the early childhood classroom, and to reflect upon the research analysis and discussion-case experience. I was interested in examining the impact and experience of participating in facilitated research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. Specifically, this study sought to answer the following questions:

1. How do pre-service teachers describe the experience of reading research on play collaboratively and applying it to a discussion-case?
2. How do pre-service teachers describe the impact of facilitated research analysis with discussion-case application on their views on the purpose of play in the early childhood classroom?
3. How do pre-service teachers describe the impact of facilitated research analysis with discussion-case application on their belief in the importance of play in the early childhood classroom, as well as their self-confidence in providing developmentally appropriate play opportunities in the classroom?

Context, Participants, and Procedure

Seventeen early childhood pre-service student-teachers enrolled in two different sections of Student-Teaching Seminar, at Brooklyn College, in Brooklyn, New York, during the Fall 2015 semester participated in the initial components of this study.

Student-Teaching Seminar is a 15-week graduate and undergraduate seminar for pre-service early childhood teachers concurrently enrolled in full-time student teaching in a local public or private school setting. The seventeen participants completed the Teacher Belief Scale (TBS) (Charlesworth et al., 1993) in order to measure their beliefs in DAP, before participating in the analysis of a selected research article by Almon and Miller (2011), published by the Alliance for Childhood, which presents a summary of the research on play in early-childhood classrooms and explains the recommendation for restoring play to early childhood education.

Each pre-service student read an assigned portion of the article and then discussed the article with their small group. A variation of the jigsaw method (originally developed by Aronson et al., 1978) was used because it has been shown to lead to effective educational outcomes, such as increased conceptual understanding, and efficient use of class time, in a variety of settings (Aronson et al., 1978; Halley et al., 2013; Hänze & Berger, 2007; Perkins & Saris, 2001; Walker & Crogan, 1998). After students read the selected piece of research, I employed a discussion-case that I created for the purpose of this study. This study used discussion-case analysis as an occasion for exploring play because research indicates that such scenarios bridge the gap between theory, research, and practice (Broudy, 1990; Butler et al., 2006; Floyd & Bodur, 2005; Koc, 2012; Schrader et al., 2003; Sudzina & Kilbane, 1994). The discussion-case used in this study

was designed to reflect some of the typical obstacles that teachers, and specifically kindergarten teachers, confront when wishing to implement and facilitate play-based opportunities in the classroom. Because research indicates that these pressures come from parents, administrators, and fellow teachers (Hirsh-Pasek et al., 2009; Lynch, 2015; Reed et al., 2012), the discussion-case involved all of these factors.

Students worked in small groups to answer discussion questions, applying the research to the discussion-case. Discussion-cases are scenarios and dilemmas, frequently based on authentic events and experiences, used to facilitate dialogue about a particular issue (Koc, 2012). The participants also received a researcher-created graphic organizer to individually record their solution to the discussion-case dilemma. Graphic organizers help students organize information from a text, such as a research article (Fisher et al., 2002) and therefore provide a viable strategy for assisting college students with the reading and analyzing of research.

Data Collection

Eight participants were selected to be interviewed based on analysis of the data obtained from the TBS. The participants represented the four students with the highest DAP scores and the four students with the lowest DAP; all who indicated a willingness to be interviewed by checking a box on the TBS. Seven of the participants were undergraduate students, and one participant was a graduate student; all of the participants were female. I was interested in exploring the discussion-case experience with participants who self-reported the strongest and weakest beliefs in DAP as a philosophy. Because play is considered an important component of DAP (Copple & Bredekamp, 2009), I sought to investigate the outermost boundaries of this continuum to understand

how those at both ends value a specific component of DAP, guided play. Furthermore, I was interested in exploring the impact of the discussion case exercise on the views of those participants at both edges. I proposed that by looking specifically at the extremes (highest and lowest DAP scores), the impact of the experience might become clearer.

The purpose of the interviews was to better understand the participants' views on guided play and their perspectives on the experience of collaboratively analyzing research and applying it to a discussion-case. One semi-structured interview was conducted with each participant, lasting about 30 minutes. A semi-structured interview was ideal for this study because it required participants to think about an event retrospectively, and allowed us to understand participants' perspective, thoughts, and feelings (Goodwin & Goodwin, 1996). Questions were informed by a literature review of the relevant topics (Rubin & Rubin, 2005)– including teachers' use of research, the research-practice gap, and the research on play in early childhood education– and by the collected graphic organizers, as they provide a foundation for discussion (Crilly et al., 2006). Interviews took place at the participants' convenience on the Brooklyn College campus. The interviews were audio-recorded and transcribed, and I also took field notes during the interview, ensuring all data were gathered (Creswell & Plano Clark, 2007). Participants were given the opportunity to look at their completed graphic organizer when answering the interview questions.

Data Analysis

Interviews were transcribed, word for word, after the interview (Rubin & Rubin, 2005). These transcripts were used for coding, which took place in two cycles. The first cycle strategy of coding was in vivo and descriptive coding and was completed manually.

With in vivo coding, the actual words of participants are used, allowing a participant's voice to be honored, an important component of understanding their experiences (Saldaña, 2009). I hoped to better understand the views and experiences of participants, as they described them. In addition, descriptive codes were used, summarizing the participants' words (Saldaña, 2009). Following in-vivo and descriptive coding, pattern coding was performed in order locate patterns and consistencies across the data corpus (Saldaña, 2009). These secondary codes were used to determine categories and sub-categories and eventually led to the determination of four key themes (Saldaña, 2009). Two of themes related to the actual research experience while the remaining two themes were associated with the impact of the experience on participants, specifically related to views and beliefs about play in the early-childhood classroom.

Findings

Four key findings emerged from the qualitative data gathered in this study. Two of these findings are associated with the impact of the experience and the other two are related to the research experience itself. The two themes connected to the impact of the discussion-case experience were a discrediting of the frequently articulated false dichotomy between playing and learning and the facilitation of agents of change, specifically teachers with the desire to include play in the early childhood classroom despite the challenges. The two themes associated with the actual experience of analyzing and applying research to a discussion-case were the facilitation of communities of practice and practicality; students felt this experience was advantageous because it encouraged collaboration among peers, facilitating the creation of a group of individuals that could share ideas and strategies and it provided a practical experience. The major

findings not only confirm prior research on the value of collaborative work and discussion-case application, but also add to the research base by indicating that the students' experience, specifically the collaborative and realistic elements, facilitates an accurate understanding of the relationship between playing and learning as well as a commitment to the implementation of playful pedagogy even in the face of considerable challenges.

Dispelling the Play-Learn Dichotomy

All participants indicated an understanding that play is a vital learning tool in the early childhood classroom. They articulated a view of playing as a central instrument to achieve developmentally appropriate learning in the early childhood classroom, allowing children to develop, learn, and thrive. One participant explained, "The purpose of children's play in the classroom is that children play to learn. That's how they discover. They need to have fun." Another simply stated, "Children learn through play. Children learn best through play." These comments indicate that participants recognized that play and learning are not separate concepts in the early childhood classrooms. This is encouraging, because, too frequently there is a false dichotomy created between playing and learning (Hirsh-Pasek et al., 2009). Such a dichotomy denotes that children can either play *or* learn, but can't do both simultaneously. The commonly held misconception that children do not learn through play is counterproductive for the field of early education (Hirsh-Pasek et al., 2009). It is important for teachers to recognize that learning and playing are *not* mutually exclusive, and that, in fact, a great deal of learning occurs through play (Cooney et al., 2000). One participant described the relationship between playing and learning by stating,

I think kids are learning through every experience they have, whether it be through play, whether it be through a walk outside. For me playing is learning, to me it's one in the same.

The understanding that separating playing and learning into distinct categories in the early childhood classrooms is an artificial and erroneous dichotomy was a heartening finding because, as Snow (2012) suggests, early childhood teachers should not be debating whether their students play *or* learn, but encouraging both to happen simultaneously.

The false dichotomy between playing and learning, which is frequently articulated and believed by those both in and out of the early childhood field, does not align with a constructivist approach to teaching where children actively construct their knowledge through play and social opportunities (NAEYC, 2009). For this reason, it was promising to hear participants not only dispel the misrepresentative dichotomy but also articulate an understanding of play as a constructivist activity, specifically an interpretation aligned with Vygotsky's (1930; 1980) social constructivist framework, which propounds that social interactions are important to higher mental function (Bodrova, 1997). One participant explained her understanding of play as a social activity influencing development across domains this way:

In my view, the purpose of children's play in early child classroom is to overall have children progressively develop with social interaction with their peers, social interaction with the teacher, through cognitive language and literacy as they interact with each other as they play. It's basically the overall development.

This viewpoint not only demonstrates an understanding of the role of play in cognitive development through social interaction, but also aligns with Vygotsky's (1930; 1980) assertion that "play contains all developmental tendencies in a condensed form and is

itself a major source of development” (p. 102). Another student expressed the relationship between playing and development in multiple domains by asserting,

I think the overall purpose of play is that it's a whole development of the child, and all the domains; cognitive, social, emotional definitely a huge one. Physical. I think they build language, or their way of communication through that too.

Similarly, a student described this viewpoint, stating,

It works for their development as far as everything: communication, learning skills; they kind of get that full, well-rounded information. They learn from their peers, they learn from their teachers what and what not to do. It's learning and it's play without the necessary pressure of what textbook learning does to children. They grasp the information without even knowing that they're learning and getting the information.

The idea that playing and learning are not mutually exclusive and that through play, and specifically its social nature, children develop in multiple domains, aligns with the tenth principle of DAP, as articulated in the NAEYC (2009) position statement, where play is described as “an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence” (p. 14). After the research experience, students demonstrated an understanding of play as a constructivist teaching tool that can positively impact children in multiple areas of development.

This finding is promising because it suggests that the research experience helped foster an understanding of the purpose of play in the early-childhood classroom, where playing and learning are coupled and where play is appreciated as a constructivist activity. If early-childhood teachers perceive playing and learning as inextricably linked, they may be more prone to foster play in their future classrooms. Research analysis with discussion-case application may serve to help halt the disappearance of play by creating teachers who deeply understand the connection between playing and learning and consequently encourage playful learning.

Teachers as Agents of Change

The second finding that emerged was the enormous importance that participants want play to have in their future classrooms. During the interviews, participants described this fervent commitment to play in their future classrooms, expressing a dedication to facilitating play opportunities when they become teachers. One student described what play might look like in her future classroom in this way:

I definitely want the classroom that they feel free to explore all types of materials. I want them to have ample opportunity to play with their materials, to get to know their materials before they just shoot in and use it. If they're going to do painting, hey, let's have various tools to use for painting, not just a paintbrush. Let's have sponges, let's play with sponges, let's play with soap, let's play with water, let's see what affect that has on paper. Let's see what effect that has on sand. If we're playing with blocks, different types of blocks, not just wooden blocks. Lego blocks, paper blocks. I want my room to look like a classroom with an assortment of materials that are tangible, that kids feel safe and supported to go and explore them on their own as well as with support

Because play is considered DAP and pre-service teachers tend to advocate philosophies consistent with DAP (File & Gullo, 2002; Kim, 2011; Smith, 1997), the intention to incorporate and facilitate play based opportunities is consistent with prior research.

This commitment to play in the early-childhood classroom appeared to align with students' increased understanding of the value of play. Although students valued play in the early childhood classroom prior to the experience, they possessed a better and deeper understanding of the purpose of play through the experience. They more clearly understood why play was essential and the serious consequences that arise from the disappearance of play. One participant explained, "It [play] will be important because I think children learn best through play. I've learned that's really important." Another explained, "I want the kids to play as much as they can. They learn from this, they discover things that they haven't seen before." It appears that a deeper understanding of

the purpose of play resulted in greater confidence for participants, facilitating a deeper commitment to facilitating play in the future. One student explained,

I think it made me more confident. I know now what type of approach to go about it, based with letting the parents know ahead of time. With the teacher where the parents complained to the assistant principal, she probably felt she was confident, like she was doing her job because parents didn't know. If I was to tell the parents ahead of time then they will have more understanding, a different perspective of why play is so important.

Another student explained,

I think that now, play has more meaning in the classroom for me. From the studies, but overall since I've started education, play was just play until it became more in depth. Especially with the article, that has a real big purpose. Getting rid of it would do a lot of harm, I think, in the classroom.

Students articulated that the experience of analyzing research and applying it to a discussion-case provided them with more confidence in their convictions and this ultimately impacted their commitment to play in the classroom.

Although participants described a great commitment to learning through play in their future classrooms, they also expressed an understanding of the barriers and obstacles to this intention. Of this a student revealed, “What I'm observing now at my site, there is not that many options for children to actually play. But I hope when I become a teacher the curriculum a little bit changes or loosens up.” Similarly, another participant recognized that although play is very important to her, she could be in a context that doesn't make its implementation uncomplicated.

If I am allowed to in whatever setting I'm in, it will be very important. I will still include it, incorporate it and allow children to have that time. And, also free play and not just structured play, but free play to allow them to explore. It will be a big part. Of course, I'll use research to back me up, and I'll stand as firm on it as I can. I don't think that I would get rid of it at all. I'm still going to do my best to try to incorporate it somewhere throughout the day.

Similarly, a different participant described her concern this way:

I think that I want to have as much play as I can, but I've been discouraged since I've been doing [field] hours, because you don't see it. Everything is so structured, even in kindergarten. Yeah. Everything is so structured. They're doing writing workshop, reading workshop, and it's like 15 minutes left for the center. What I see that I don't like, that I hope I don't do in the future as a teacher, is have the students finish work. What I see a lot is the teachers taking away the center time for the students to finish writing or reading or whatever they're working on. I hope that I don't do that as a teacher. They take away their center time to make them finish their work.

All of the participants that were interviewed possessed a commitment to incorporating play into their future classrooms, while they also expressed a realistic sense of the obstacles to implementing such play in the classroom. They discussed the disappearance of play and the likely barriers to implementing play that align with prior findings (Brashier & Norris, 2008; Lynch, 2015; Miller & Almon, 2009; Nicolopoulou, 2011).

The accurate recognition of the probable obstacles to play in the classroom is encouraging because it is imperative that early childhood preparation programs incorporate the challenges from the field that students will face as teachers into their preparation (Vera & Geneser, 2012).

Because students expressed a deep commitment to play in their future classrooms despite the recognition of the likely obstacles, there appeared to be great determination to change the status quo. One student explained, "It lets me see now that I should probably fight for it more if I'm not given the opportunity to allow the children to play." Another student expounded, "I think that it's inspired me to be more pushing for play. I'm definitely more dedicated or more determined to have play present." Play is rapidly disappearing from early childhood classrooms, so the commitment to its continuance after the discussion-case experience illustrates that participants possess characteristics typical of change agents (Bodrova, 2008). These teachers appear to be dedicated to

teaching “against the grain” (Cochran-Smith, 1991, p. 280). They not only felt committed to play in their own future classrooms, but also to helping others understand the purpose and importance of playful learning. Participants expressed a desire to educate parents, administrators, and other teachers on the value of play in children’s learning. One participant explained,

Instead of me just introducing play to the kids I will probably let the parents know ahead of time informing them I'm introducing children to be able to learn about play, saying why it's important, educating them before they shut me down saying, "I don't want to do play in my classroom, I don't want play because it's not important." Just letting parents know.

Another described how she might use research on the benefits of play, specifically with a school principal:

We're always looking for proof, so if I were to come up to the principal and tell him, "Listen, there's been research that's been done specifically towards that play is important and this some of the research that's been done, and make them aware of what's going on. They'll be an impact to the way I would describe it

The education of people in these positions appears valuable as prior research has indicated that parents, other teachers, and administrators can be major barriers to the implementation of play opportunities in the classroom (Lynch, 2015). Chen (2005) found that change agents not only influence their own classroom but those surrounding them, including other teachers and administrators. If this deep commitment to play in the classroom, including the education of other teachers and administrators, results in teachers being able to overcome likely obstacles, they will be exhibiting what Achinstein and Ogawa (2006) termed “principled resistance” (p. 32). Principled resistance is defined as “overt or covert acts that reject instructional policies, programs, or other efforts to control teachers’ work that undermine or contradict professional principles” (p. 32). Acts of “principled resistance” allow teachers to defend their professional convictions through

action despite a culture that seemingly requires the opposite (Paris & Lung, 2008). Many participants appeared to exhibit an agentic stance towards play in the classroom after the research experience, demonstrating “principled resistance” through a strong dedication to play as pedagogy in a climate that is increasingly opposed to this. This agentic stance can assist in hindering the loss of play in the early childhood classroom. Hence, this finding indicates something new: Research analysis with discussion-case application offers a tactic for fostering change agents committed to reversing the trend of play disappearance.

Community of Practice

Participants found it advantageous to work in small groups for the research analysis and the discussion-case application. They expressed that dividing the reading among group members, becoming an expert on just a component of the reading, discussing the reading with peers, and working through the discussion-case with others, were all beneficial components of the experience. This finding indicates that the classroom experience was, in part, advantageous because of the collaborative nature of the activity. Specifically, students described the shared experience as valuable because, through discussion, it fostered a deep understanding of the material and concept, ultimately resulting in the feeling of being part of a community of practice. The students’ descriptions of the small group experience demonstrated the initial development of communities of practice. Wenger (2006) described a community of practice as,

Formed by people who engage in a process of collective learning in a shared domain of human endeavor: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in the school, a network of surgeons exploring novel techniques, a gathering of first-time managers helping each other cope. In a nutshell: Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (p. 1).

A community of practice has three key components; members have a shared interest, help one another through discussions and by sharing information, and are practitioners with a shared practice (Wenger, 2006). When participants described the experience of collaboratively analyzing research and applying it to a discussion-case they frequently referenced all three of these components.

Participants felt that they gained a deeper understanding of the reading and the discussion-case because they were exposed to different viewpoints through their group discussion, which helped them understand the concepts more completely. As one student explained,

That was a good way to do it because not everyone reads the same, and if you're reading the whole thing by yourself you might miss something more important from the others. I still, even though I read the whole thing, I was still able to take from the other members of my group that I had missed.

Another participant described the multiple perspectives of the group that resulted in collective learning by stating, "I think that not everybody thinks the same way so when you have other people with you, you just get a new light on things, it's better it's easier." Additionally, participants described feeling connected by a common interest and concern. As one participant explained, "It was good because it was a shared interest, and also I think we all shared the same concerns, and we were all surprised that we don't think that this is an appropriate way to teach." Furthermore, students described discussions that led them to think about their own practice, specifically their future classrooms. One participant explained,

You let us keep going with the discussion. Even having the time with the discussion, people decided to bring in personal experiences about them being in a classroom, working under not very successful supervisors and stuff. We actually had deep conversation, like the research and the whole activity had us started

getting into deep conversation about experiences and you know, how we would want our future classroom to be

It appears that, through meaningful discussions and peer feedback, working in a small group helped students to more deeply understand the material and contemplate multiple perspectives and possibilities. Becoming part of a community of practice also increased students' confidence. One participant explained, "When you have everybody agreeing with you, of course you feel a little better. You get more confidence"

Ultimately, for some students, the group discussion led them to alter their initial solutions to the discussion-case and their perspective on play in the classroom. For example, one student described how members of the group assisted her in modifying her original resolution to the discussion-case through the dialogue they engaged in and the feedback she received. She explained,

It was good working with the group when we had to decide what we would do with the lesson plan. Because after hearing, like I was really strong on I'm going to make my own decision, I'm going to change it. But then after hearing other people's opinion and them telling their own experience of being in the classroom, it helped you, it helped me realize I had to change how I was thinking a little bit. Just chunking the research paper and then having other people give you their opinions, even though I read their pieces, having their opinion and having their feedback was really helpful.

This student recalled that initially she suggested one approach to the dilemma presented in the scenario, but through a lengthy discussion, she came to support a slightly altered tactic, which she described as a combination of the views of the group. Engaging as a member of a community of practice helped refine her thoughts on the topic.

In addition, the small group work also facilitated a renewed focus and commitment to play as a viable and important educational tool. Indeed the small group

work established a community of practice that specifically supported advocacy. A student explained,

I think the concern with the negative effects was more heightened because we worked in a group. Then you're in a little support system of people who want to radicalize education, and that share your same concerns and share your feelings. Then here we are together reading this, and then we're trying to figure out a way to advocate for better, healthier experiences at school, and a better educational approach. I think it just heightened our concern. I think if I would have read it alone and shared it with someone, they may not have appreciated it as much as I did. I think that in a group setting with people that your values a little aligned in certain senses help reinforce hey, this is something that is not right, that it's not okay, that something has to happen here.

It appears that working collaboratively helped students to feel supported in their views.

This sense of backing bolstered participants' desire to serve as advocates for an educational approach that they deemed appropriate and necessary.

This finding is consistent with prior research on the value of cooperative learning strategies and the role of social interaction in the learning process (Aronson et al., 1978; Bodrova, 1997; Davis, 1993; Halley et al., 2013; Hänze, & Berger, 2007; Hausfather, 2001; Perkins & Saris, 2001; Walker & Crogan, 1998). This finding indicates that the experience of analyzing research and applying it to a discussion-case was beneficial, at least in part, because it allowed students to work collaboratively on the task, sharing the reading and discussing it in such a way that manageability was improved and understanding was increased.

However, this finding also supplements the research on collaborative work. Because students enjoyed and benefitted from working in small cooperative groups when engaged in research analysis with discussion-case application, articulating that this helped them in developing a deepened understanding of and commitment to play in the early childhood classroom, such collective efforts appear to be a key component in

assisting pre-service teachers become teachers capable of facilitating playful learning experiences in their future classrooms despite the challenges. Participants felt included in a community of practice that was dedicated to analyzing and understanding a complex concept and to determining feasible research-based solutions. This finding indicates something new: The communal endeavor of analyzing research and applying it to a realistic scenario seems to be a significant element of the experience and important for its effectiveness as a tool for teacher-educators.

Practicality

Participants felt that the application portion of the activity, which allowed them to use research immediately to work through a dilemma, was advantageous because it provided a rich experience that was practical in nature. Applying the research to a discussion-case helped students to appreciate the material more deeply. One student described this by stating,

If we just had a group conversation and then we didn't really apply it, it would be like reading a novel. I feel like it would just be reading but not reading to actually understand and say, oh, apply it. Like, actually, apply it to something and take it with you. I feel like it would have just been like we were just reading to read.

The same student expressed why she felt it was beneficial to apply the research to a discussion-case after analyzing it, explaining,

I guess when you're applying something, you're utilizing it more. You have to dig deeper, you have to think deeper than to just read the article, and say, "Okay," and you place the article aside. Having to do the study along with it and apply the actual article, it makes you think and reflect on what you're seeing and what you know and your experiences.

The application process assisted participants with their understanding of the topic by facilitating deeper thinking and reflection. However, it was not simply the application of research to a discussion-case that was highlighted as a significant component of the

experience, but specifically the fact that the discussion-case was realistic in nature. In this way, the discussion-case helped facilitate a better understanding of the obstacles for teachers interested in facilitating playful learning opportunities and served as a practice run for tackling these barriers.

Participants expressed the feeling that the discussion-case provided an opportunity to understand what is actually occurring in the field today. One participant explained,

It gives me more information and it helps me to see how other people are thinking and it give me deeper knowledge in to something that is relevant or something that is going on within the field of education and children.

The application to a discussion-case provided participants with practice facing something that they will likely confront in the near future, in real life. A student explained,

You can read research to read it, but if you're not applying it, you're not really gaining from it, so if you have a discussion case or something like this graphic, something to put the research into, you're going to remember it and it going to stay with you. It gives me a chance to, things like this are going to happen, this is a normal situation. It's is not out of the blue, so I think coming out of college we think it's great and dandy, and it's really hard.

The activity allowed students to rehearse handling the likely barriers to play in the classroom. Because participants read about and discussed the expected obstacles they will face as teachers when trying to facilitate play based opportunities in the classroom, the research experience provided the opportunity to discuss a genuine issue, making the activity practical and relevant in nature. As one student stated,

It just gave me another example of a problem that may occur later, so just, hey, if you have this situation occur, then just be ready because these steps are things you can apply to that. I like the applying it. I feel that again, it helps strengthen our skillset. It helps us understand what we're doing and why we're doing it. Understanding different cases shows us the different barriers that we may face, the different barriers that exist, and why this research is being used.

Similarly, another student believed that the experience provided her with feasible strategies for combatting a likely issue in her future, explaining,

From here on out if I ever came across the scenario, I would know how to approach it in a more adult, professional way and I would be able to say, "research shows that if we allow them to play, they're more productive."

Not only is the experience practical because it illuminates likely challenges, but because it also offers students an opportunity to explore solutions. This trial experience of facing and resolving realistic challenges provided students with an encounter they deemed as pragmatic and representative of their futures, and therefore advantageous. Consequently, it appears that a fundamental piece of the research experience was the *true-to-life* nature of the discussion-case issue, which allowed a student to feel that they were experiencing a likely practitioner-based scenario that may assist them in the future.

Overall, participants expressed the sentiment that applying research to a discussion-case was more helpful than just reading and discussing the research without the application component, providing a very practical learning experience. The process appeared to assist participants with their understanding of the concept by facilitating deeper thinking and reflection and also afforded them the opportunity to practice for their futures, as head teachers, when they will likely face challenges to implementing play in their classrooms. This finding is consistent with prior research on the value of discussion-cases, allowing students to bridge the gap between theory, research, and practice; engage in a remote but genuine classroom experience; make connections to real world and personal experiences; and encourage meaningful discussion (Broudy, 1990; Butler et al., 2006; Erdman, 1983; Floyd & Bodur, 2005; Goldblatt & Smith, 2005; Koc, 2012; Perry & Power, 2010; Pitton, 2010; Schrader et al., 2003; Sudzina, Kilbane, 1994). However,

this finding also contributes something new to the research on discussion-case application. The experience of applying research on the topic of play to a realistic discussion-case about the issues that frequently surround the implementation of play in the classroom is an insight-provoking strategy that can be used with pre-service teachers, helping them to become more confident in and dedicated to reversing the trend of play disappearance.

Discussion and Implications

The findings from this qualitative study are encouraging because they demonstrate the potential of facilitated research analysis with discussion case application as a strategy for reversing the disappearance of play in early childhood classrooms. The findings indicate that the experience of collaboratively analyzing research and applying it to a realistic discussion-case is a technique with the potential to foster a deep understanding of the purpose and importance of play in the early-childhood classroom, specifically the relationship between playing and learning, and cultivate a commitment to preserving play in the early childhood classroom despite an understanding of the formidable obstacles. It appears that the experience is beneficial because it allows students to work collaboratively, constructing a community of practice, and because the experience itself is viewed by participants as practical and realistic in nature.

Unfortunately, we know that many prospective teachers have limited opportunity to learn about or observe play in the classroom. Pre-service teachers engaging in fieldwork and completing their student-teaching frequently have inadequate opportunities to witness play in action. Cooperating teachers hosting pre-service teachers (as they participate in fieldwork and student-teaching) do not always function as models for

appropriate play in the classroom, even when they espouse play (Vera & Geneser, 2012). This phenomenon is attributed to the reality of today's early childhood classrooms where teachers frequently value play but experience tremendous challenges in implementing it due largely to an emphasis on testing, rigid schedules, and standards (Ranz-Smith, 2007). Therefore, pre-service teachers can complete their teacher education programs possessing only a very rudimentary sense of the pedagogy of play, lacking the experience of witnessing its implementation in classrooms and with students, and without the ability to articulate in detail the value of play. This is likely the case for participants in this study, who complete their field work and student-teaching in New York City (NYC) schools where Miller & Almon (2009) found that 79% of kindergarten teachers spend time each day on test-preparation, and play is frequently completely eliminated or relegated to a minor and occasional activity. Furthermore, on a typical school day, kindergarteners in NYC spend four to six times more of their day receiving literacy and math instruction and preparing for tests (or taking them) than engaged in play or choice time; this amounts to less than 30 minutes of play per day (Miller & Almon, 2009). Only 13% of NYC early childhood teachers reported being provided with adequate materials for dramatic play in their classrooms (Miller & Almon, 2009). These conditions and constraints may explain why Miller & Almon (2009) found that teachers are rarely capable of accurately and in detail articulating the relationship between playing and learning in the early childhood classroom, despite contending that play is important. However, participants in this study were capable of verbalizing this relationship in significant detail, countering the all too prevalent false dichotomy of playing and learning. For these participants, engaging in research analysis with discussion-application provided an opportunity to explore play in

the early childhood classroom as well as some of the realistic challenges associated with play implementation, increasing their understanding of the relationship between playing and learning, and allowing them to articulate this connection with clarity and conviction, debunking the erroneous separation of playing and learning.

Because play in the early childhood classroom is so important to children's development and learning (Brashier & Norris, 2008; Hirsh-Pasek, et al., 2009; Nicolopoulou, 2011; Reed et al., 2012), and because despite this fact, play is rapidly disappearing from early childhood classrooms (Brashier & Norris, 2008; Lynch, 2015; Nicolopoulou, 2011), preparing pre-service teachers to successfully facilitate play opportunities was a worthwhile area for investigation. Developing pre-service teachers as effective facilitators of play as pedagogy has the potential to alter and reverse the current trend of developmentally inappropriate teaching supplanting play based pedagogy. Miller & Almon (2009) suggest that in order to halt the dangerous reduction of play in today's classrooms, we must provide "first-rate preparation that emphasizes the full development of the child and the importance of play, nurtures children's innate love of learning, and supports teachers' own capacities for creativity, autonomy, and integrity" (p. 60). Reversing the trend of play disappearance begins with how we prepare our teachers.

The findings from this study have notable implications for teacher preparation. Discussion-cases appear to be a valuable tool for helping teachers to develop the knowledge and confidence required to serve a vital role in correcting the trend of play-disappearance (Bredekamp, 2004). The findings indicate that reading and analyzing research in a small group and applying it to a discussion-case concerning the obstacles to implementing play in the classroom is a beneficial experience, which helps pre-service

teachers recognize the purpose and value of play, specifically the relationship between playing and learning, and builds pre-service teachers' commitment to and confidence in the incorporation of play in their future classrooms.

Nurturing the development of change-agents through teacher-preparation programs may be one of the crucial ingredients to reversing the trend of play disappearance in the early childhood classroom. Because pre-service teachers quickly become new teachers, they have the potential to bring new research-based ideas to the field, influencing dominant practice (Vera & Geneser, 2012). New teachers can become vital change agents (Bodrova, 2008). We know that developmentally appropriate practice, including play in the early childhood classroom, can be difficult to accomplish in the prevailing climate (Paris & Lung, 2008). Consequently, many new teachers leave their teacher preparation programs aware of the benefits of play, but they don't facilitate and foster such outcomes (Paris & Lung, 2008). Hence, it is not enough to understand the value and purpose of play. Teacher education programs need to enable the development of teachers capable of implementing appropriate play opportunities in the early childhood classroom *despite* the many challenges and barriers. Cochran-Smith (1991) called this the facilitation of teachers capable of "teaching against the grain" (p. 280). It is with this need in mind, this study's treatment was designed, with the purpose of facilitating such an ability in pre-service teachers.

It is unquestionably not too late to reverse the current trend of direct instruction replacing play, for "In spite of dwindling time and materials for dramatic and imaginative play... children's innate playfulness is irrepressible, like a plant pushing up through a crack in concrete... given the slightest opportunity, many children seize the moment"

(Miller & Almon, 2009). This study demonstrates that research analysis with discussion-application may be a promising strategy for enabling the development of such agentic teachers. This finding indicates that participants may be emerging change agents who not only wish to assert “principled resistance” (Achinstein & Ogawa, 2006, p. 32) in their own classrooms, but possess a desire and commitment to influence others, including fellow teachers and administrators (Chen, 2005). The discussion-case used in this study allowed pre-service teachers to reflect on their role as agents of “principled resistance” (Achinstein & Ogawa, 2006, p. 32), defending their professional convictions, including the value of play as a pedagogy, despite a climate that frequently encourages just the opposite (Paris & Lung, 2008). For participants, the research experience not only fostered a deep understanding of the role of play in the classroom, including the inseparable connection between playing and learning, and a commitment to playful pedagogy, it also appeared to inspire change agent thinking.

In spite of the current climate, there are many early childhood teachers who use developmentally appropriate practice and successfully employ play in their classrooms. Teachers who “walked the walk” of DAP and not just “talked the talk,” as McMullen (1999) described it, were firm believers in the practice, maintaining classrooms aligned with their “deeply held convictions” despite the challenges (p. 264). In fact, resolute belief in the practice was the greatest predictor of teacher agency (McMullen, 1999). The current study reveals that students possessed an ardent belief in play after the research experience, indicating that collaborative research analysis with discussion-case application offers a valuable strategy for developing resolute beliefs, and consequently fostering teacher agency.

Conclusion

Although play in the early childhood classroom represents developmentally appropriate practice and research consistently establishes its effectiveness and appropriateness in this context, it continues to vanish from classrooms. Because play is rapidly disappearing from the early childhood classroom despite the convincing research on its effectiveness, it was sensible to examine the impact of an experience related to the disappearance of play. This study's research questions were designed to address how facilitated research analysis with discussion-case application impacted pre-service teachers' perceptions of the role and value of play as well as their confidence in implementing play opportunities in the classroom despite realistic obstacles, and to explore the experience of using the strategy of discussion-case application as a learning instrument. This study's findings are reassuring because they demonstrate the potential of facilitated research analysis with discussion case application as an approach and tool in the preparation of teachers, specifically for assisting in the reversal of the disappearance of play in early childhood classrooms.

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Appendix A

Oral Informed Consent Script

THE CITY UNIVERSITY OF NEW YORK
Brooklyn College
Department of Early Childhood Education/Art Education

ORAL OR INTERNET BASED INFORMED CONSENT SCRIPT

Title of Research Study: Student-Teachers' Perceptions of Play in the Early Childhood Classroom After Research Analysis with Discussion-Case Application: A Sequential Explanatory Mixed Methods Approach

Principal Investigator: Meredith Resnick, M.Ed, MA, & Doctoral Candidate
Adjunct Lecturer

You are being asked to participate in a research study because you are currently enrolled in a section of student-teaching seminar for pre-service early-childhood education students.

Purpose:

The purpose of this research study is to examine the impact and experience of participating in research analysis with discussion-case application on early childhood pre-service teachers' knowledge of and attitude towards the role and value of play in the classroom, as well as their self-confidence in promoting developmentally appropriate play opportunities in the classroom. The data from this study will be analyzed and used to inform the researcher's teaching practice and for a dissertation.

Procedures:

If you agree to participate, we will ask you to do the following:

- Complete a survey
 - You will complete a short survey that asks for demographic information and asks you to respond to statements about classroom practice by checking a box that most accurately represents your personal beliefs.
 - You may refuse to answer any questions that you do not want to answer and still remain in the study.

- The survey will be completed during student-teaching seminar, and will take approximately 20 minutes of your time.
- Survey responses will be kept confidential.
- Participate in an interview
 - If you indicate on your survey that you are willing to participate in a follow-up interview, you may be contacted to meet with the researcher to be interviewed.
 - You will be asked approximately ten questions by the interviewer about your teaching beliefs and your experience in student-teaching seminar related to reading and using research on play.
 - You may refuse to answer any questions that you do not want to answer and still remain in the study.
 - The interview will be conducted on campus at your convenience, and will take approximately 45 minutes of your time.
 - Interview responses will be kept confidential.
 - Interviews will be audio-recorded so that the researcher can transcribe your responses. Only the researcher will have access to the audiotapes. You have the right to review the recording of your interview to determine whether they should be edited or erased in whole or in part. Upon completion of this study, the audio recordings will be erased.

Time Commitment:

Your participation in this research study is expected to last for a total of 20 minutes during one class session if you just complete the survey. If you participate in a follow-up interview you will also participate on one additional day, for approximately another 35 minutes.

Potential Risks or Discomforts:

If you do not wish to answer any survey or interview questions because they make you uncomfortable or for any other reason, you may refuse to answer and still remain in the study.

Potential Benefits:

This study can benefit those who prepare teachers through teacher education programs. This study may help teacher-educators effectively endow new teachers with the ability to analyze and incorporate educational research into their practice. Furthermore, this study may contribute to the strategies used in teacher preparation programs to effectively prepare their students for their work as teachers.

Confidentiality:

We will make our best efforts to maintain confidentiality of any information that is collected during this research study, and that can identify you. We will disclose this information only with your permission or as required by law.

We will protect your confidentiality by using a coding mechanism. Each participant will be assigned a code before completing the survey. A list linking these codes to a

participant by name will be kept in a different location with restricted access. Only the researcher will have access to this list and the data. After the research is completed, the researcher will destroy the list that links the codes to participants' name.

Interviewees will be identified by their code during the interview process and on the transcriptions created from the audio-recordings. Participants' responses will never be cited by name or linked to any unique identifying information. Furthermore, all data, including the completed surveys, interview recordings, and interview transcriptions will be stored in a locked cabinet with restricted access.

The research team, authorized CUNY staff, and government agencies that oversee this type of research may have access to research data and records in order to monitor the research. Research records provided to authorized, non-CUNY individuals will not contain identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

As a Brooklyn College (CUNY) student, your willingness to participate in this research study or your request to withdraw from the research study will not affect your grades or academic standing with CUNY. This research is not required for student-teaching seminar or for any other course.

Your participation in this research is voluntary. If you have any questions, you can contact Meredith Resnick (MeredithResnick1@mac.com, 917-842-1891). If you have any questions about your rights as a research participant or if you would like to talk to someone other than the researchers, you can contact CUNY Research Compliance Administrator at 646-664-8918.

Appendix B
Survey Protocol

Assigned Code: _____

All information will be kept anonymous and will be used for research only.

Gender Male _____ Female _____

Age _____

Ethnicity

Caucasian _____ African-American _____ Hispanic _____
Asian _____ Other _____

Study Level Undergraduate _____ Graduate _____

Major Regular Education Only _____ Regular & Special
Education _____

Placement

Please check one from each row:

(1) Student-Teaching _____ Work Site _____

(2) Public School _____ Private School _____

(3) < PK Pre-K _____ Kindergarten _____ 1st Grade _____ 2nd Grade

Please check the box below if you are willing to be contacted for a follow-up interview. This is purely voluntary.

Teacher Beliefs Scale (TBS)

1. Rank the following (1-6) by the amount of influence you feel that each has on the way you plan and implement instruction. (Please be sure to use each number only once.)

Parents _____
 Parish or school system policy _____
 Principal _____
 Teacher (yourself) _____
 State regulation _____
 Other teachers _____

Directions: Please respond to the following items by checking the box that most accurately represents your personal beliefs about the importance of that item in a kindergarten classroom.

	Item	1 Not Important At All	2 Not very Important	3 Fairly Important	4 Very Important	5 Extremely Important
2	As an evaluation technique in the kindergarten program, standardized group tests are _____.					
3	As an evaluation technique in the kindergarten program, teacher observation is _____.					
4	As an evaluation technique in the kindergarten program, performance on worksheets and workbooks is _____.					
5	It is _____ for kindergarten activities to be responsive to individual differences in _____.					

	interest.					
6	It is _____ for kindergarten activities to be responsive to individual differences in development					
7	It is _____ that each curriculum area be taught as separate subjects at separate times.					
8	It is _____ for teacher-pupil interactions in kindergarten to help develop children's self-esteem and positive feelings towards learning.					
9	It is _____ for children to be allowed to select many of their own activities from a variety of learning areas that the teacher has prepared (blocks, science center, etc.)					
10	It is _____ for children to be allowed to cut their own shapes, perform their own steps in an experiment, and plan their own creative drama, art, and writing activities.					
11	It is _____ for students to					

	work silently and alone on seatwork.					
12	It is _____ for kindergarteners to learn through active exploration.					
13	It is _____ for kindergarteners to learn through interaction with other children.					
14	Workbooks and/or ditto sheets are _____ to the kindergarten program.					
15	Flashcards (numbers, letters, and/or words) are _____ to the kindergarten program for instructional purposes.					
16	The basal reader is _____ to the kindergarten reading program.					
17	In terms of effectiveness, it is _____ for the teacher to talk to the whole group and make sure everyone participates in the same activity.					
18	In terms of effectiveness, it is _____ for the teacher to move among groups and					

	individuals, offering suggestions, asking questions, and facilitating children's involvement with materials and activities.					
19	It is _____ or teachers to use their authority through treats, stickers, and/or stars to encourage appropriate behavior.					
20	It is _____ for teachers to use their authority through punishments and/or reprimands to encourage appropriate behavior					
21	It is _____ for children to be involved in establishing rules for the classroom.					
22	It is _____ for children to be instructed in recognizing the single letters of the alphabet, isolated from words					
23	It is _____ for children to color within predefined lines.					
24	It is _____ for children in kindergarten to form letters					

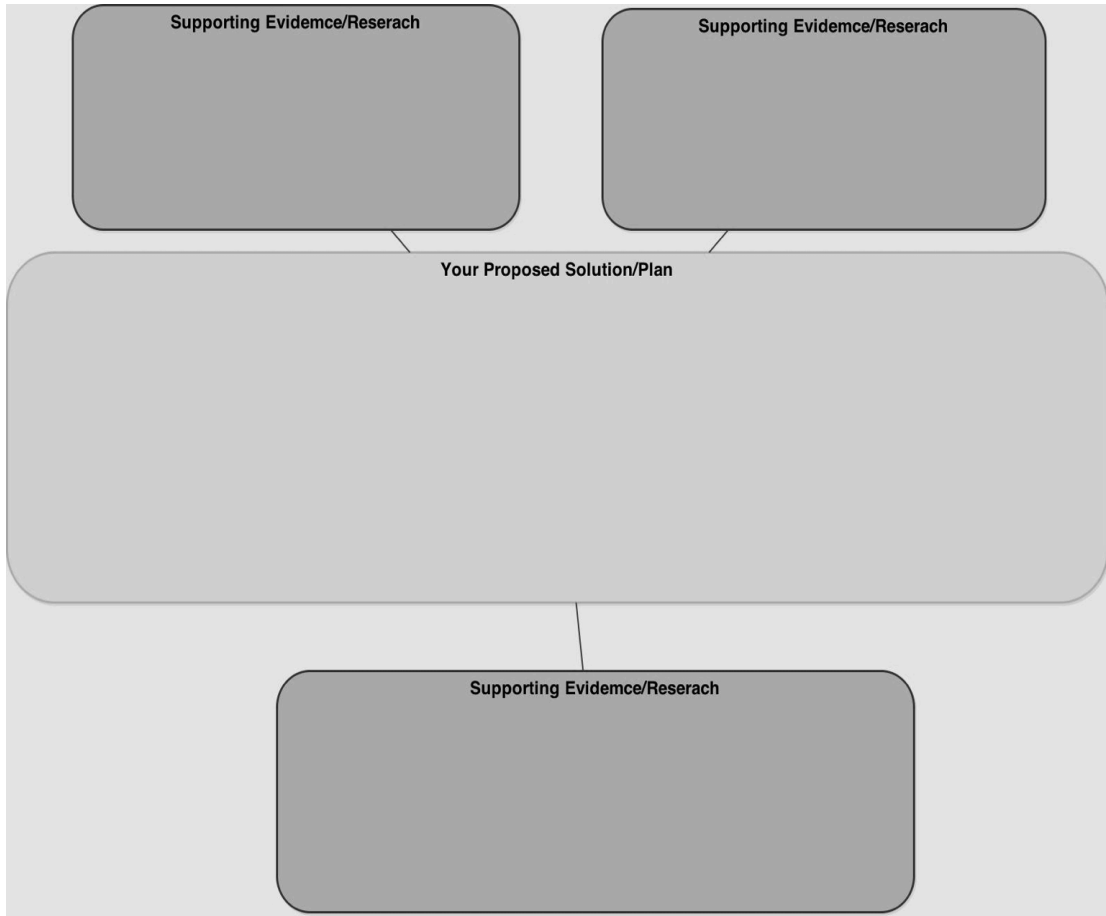
	correctly on a printed line.					
25	It is _____ for children to have stories read to them individually and/or on a group basis.					
26	It is _____ for children to dictate stories to the teacher.					
27	It is _____ for children to see and use functional print (telephone books, magazines, etc.) and environmental print (cereal boxes, potato chip bags, etc.) in the kindergarten classroom.					
28	It is _____ for children to participate in dramatic play.					
29	It is _____ for children to talk informally with adults.					
30	It is _____ for children to experiment with writing by inventing their own spelling.					
31	It is _____ to provide many opportunities to develop social skills with peers in the classroom					
32	It is _____ for					

	kindergarteners to learn to read.					
33	In the kindergarten program, it is _____ that math be integrated with all other curriculum areas.					
34	In teaching health and safety, it is _____ to include a variety of activities throughout the school year.					
35	In the classroom setting, it is _____ for the children to be exposed to multicultural and nonsexist activities.					
36	It is _____ that outdoor time has planned activities.					
37	Input from parents is _____					

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Appendix C
Graphic Organizer

Assigned Code: _____



Appendix D

Discussion Case and Questions

You are a new Kindergarten teacher at The Claremont School. When you took the job, you were told by the Director, Mr. Barnett, that although Claremont has a basic curriculum that you must follow, you will have the freedom to implement it in ways that you see as appropriate.

At your first team meeting, you meet the other two kindergarten teachers. Ms. Mitchell has been at Claremont for three (3) years and Mrs. Dotson has been at Claremont for 18 years. Ms. Mitchell and Mrs. Dotson work together closely and they invite you to join them for their daily planning sessions. You quickly learn that Mrs. Dotson creates detailed lesson plans not only for herself but for Ms. Mitchell as well. Ms. Mitchell appears happy to use these plans.

When you look at the plans that Mrs. Dotson shows you at the first planning session, you notice that there is virtually no free play and very limited guided play in these classrooms. You ask Mrs. Dotson about this missing component, and she insists that there just isn't enough time for play given the pressure to get these children reading and ready for first grade.

Mrs. Dotson suggests that you use her lesson plans so that all three kindergarten classrooms can be doing the same thing each day. Ms. Mitchell concurs and adds that when she tried to incorporate increased guided play into her schedule during her first year at Claremont, the parents complained directly to Mr. Barnett and when he let her know about the parents' grievances, she quickly returned to the schedule and plans Mrs. P created. Ms. Mitchell learned that the parents felt that play was a waste of time and this time should be spent learning.

Ms. Mitchell advises you not to make the same mistake she did, adding that Mrs. Dotson is very experienced and following her plans will make the Mr. Barnett and the parents very happy.

Discussion Questions:

- *Who are their important characters/players in this scenario?*
- *Is there a problem here? If so, what is it and why is it a problem? How can you use research to support your thoughts?*
- *How would each character feel at this time? What might they argue?*
- *What are your responsibilities to your students? Their parents? The school's*

director? The other kindergarten teachers?

- *What are your options (as the new K teacher)? What are the advantages and disadvantages of each option? What are the consequences and implications of each option? How can you use the research to support this?*
- *Select what you consider your best option and use the graphic organizer to detail your plan (solution). Be sure to support your plan with research.*

After discussing this case with your group as well as your responses to the questions above, and in conjunction with the research article provided, please use the graphic organizer to describe your plan, as the new kindergarten teacher described above.

What will you do now?

Appendix E

Interview Protocol

Interview Questions:

1. Describe the purpose of children's play in the early childhood classroom?
 - i. Describe any changes after the discussion-case activity?
2. Describe the relationship between play and learning?
 - i. Describe any changes after the discussion-case activity?
3. Describe the play you observe in the classroom you are currently placed in for student-teaching?
4. Describe the importance play will have in your classroom when you become the head teacher?
 - i. Describe any changes after the discussion-case activity?
5. What are some of the challenges or barriers, if any, you see or anticipate in the early childhood classroom for the implementation of play opportunities?
 - i. How confident are you in your ability to overcome these barriers?
 - ii. Describe any changes after the discussion-case activity? (Did this change after our discussion case activity? In what way(s)?)
6. Describe how confident you are in your ability to read educational research such as the piece we read by Almon & Miller?
 - i. Describe any changes after the discussion-case activity?
7. Describe how confident you are in your ability to apply educational research such as the piece we read by Almon & Miller?
 - i. Describe any changes after the discussion-case activity?
8. Describe how confident you are in your ability to facilitate learning through play?

- i. Describe any changes after the discussion-case activity?
9. Tell me about your graphic organizer from the discussion-case activity?
- i. Describe your solution.
- ii. Describe how you used research
- iii. Do you think your solution would have been different prior to the research analysis? In what way(s)? Describe any changes after the discussion-case activity?
9. Tell me about the experience of collaboratively analyzing research (jigsaw) and applying it to a discussion case?
- i. Describe the impact of the experience on your **understanding** of how to read and understand research
- ii. Describe the impact of the experience on your **confidence** reading and understanding research
- iii. Describe the impact of the experience on your **understanding** of learning through play
- iv. Describe the impact of the experience on your **confidence** implementing play-based learning experiences
9. Would you want to participate in another research analysis activity with discussion case application? Why?
10. Now that you know what I am studying, are there any questions that you think I should have asked? Or is there anything you would like to add?

Probes to be used as needed:

- Can you provide an example?
- Can you tell me more?
- Is there anything else you would like to add?