**AN EXPLORATION OF KINDERGARTEN READINESS OPPORTUNITIES**

by

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A nation can take no sounder action to ensure its future wellbeing than provide its young citizens with equitable and universal access to a high-quality education. Unfortunately, educators often find that their efforts are undermined even before the year's first roll call. Every fall, schools across America usher in new classes of kindergartners, and every year, those students arrive with extremely disparate skills shaped by their vastly different prekindergarten experiences. Lone Wolf Elementary was no different as it welcomed in the 85 kindergartners who would become the class of 2016-2017. Forty-six of the students had attended pre-k programs within the geographical borders of the Wolf Pack School District, 29 of the students had been enrolled in programs outside of the community, and the remaining 10 students arrived with no prior formal educational experience.

The study at hand examined three main foci: the ten Wolf Pack 2016/17 students with no pre-k education, their 46 classmates who attended pre-k programs within Wolf Pack's district boundaries, and the seven local prekindergarten programs which this latter group attended. By observing these subjects, the researcher sought to gain a deeper understanding of the quality of local prekindergarten enrichment opportunities within the Wolf Pack district, the ability of all students within the community to access these opportunities, and the functionality of the relationships between these pre-k programs and the Wolf Pack School District. The driving

motivation for initiating this inquiry was to identify strategies to guarantee all future students

access to the high-quality pre-k opportunities.

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# 1.0     INTRODUCTION


In 1991, the National Education Goals Panel officially resolved that "By the year 2000, all children will come to school ready to learn" (1991, p. ix). However, in spite of this worthy goal, children continue to arrive at kindergarten with vastly different educational experiences and skill sets. In many cases, these preparedness disparities are directly attributable to a child's lack of exposure to prekindergarten programming, an accessibility gap which, in turn, often stems from (and is accentuated by) discrepancies in socioeconomic standing and cultural capital (Halle et al., 2009; Dotterer, Iruka & Pungello, 2012). Participation in prekindergarten programming has been linked to greater school readiness, enhanced success throughout the educational career, and a reduction in a student's need for support services (Currie & Thomas, 1993; Taylor, Gibbs & Slate; 2000; Schweinhart, 2003; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007; Temple & Reynolds, 2007; Heckman, Moon, Pinto, Savelyev & Yavitz, 2010).  The primary objectives of the inquiry at hand were to identify the students at Wolf Pack Elementary who did not (or could not) access prekindergarten programming, to examine the relationship that enrollment (or lack thereof) in local prekindergarten programs had on the subsequent performance of the children when they entered elementary school, and to ultimately develop relationships between local prekindergarten programs and the Wolf Pack School District that will, moving forward, support the development of the youngest learners before learning gaps begin to form.

## 1.1    STATEMENT OF THE PROBLEM

Lee and Kao (2009) have focused on kindergarten readiness through the lens of Bourdieu and Passeron's (1979) cultural capital argument, a hypothesis which asserted that middle- and upper-class students enjoyed a higher level of educational access in comparison to economically marginalized children. The insights from their work demonstrate that advantages gained by some children at a young age include, but are not limited to: immersion in a vocabulary-rich environment, regular encounters with enriching learning opportunities, and exposure to high quality academic programs. Each of these opportunities, when experienced by only a certain population of children, contributes to the readiness gap identified when an age cohort reaches kindergarten. Proficiency levels that exist upon entering kindergarten tend to persist, providing long-term benefits to students that begin kindergarten with a solid educational foundation, and long-term handicap to those who do not (Taylor et al., 2000). Furthermore, in addition to the financial and cultural barriers standing between low-income families and enriching pre-k settings, a prevalent lack of awareness of kindergarten readiness standards also makes low-income parents less likely to recognize the developmentally detrimental consequences of not enrolling their children in these programs. These accessibility deficits were, in turn, exacerbated by an increase in the rigor in academic standards, a dearth of government structures aimed at reaching needy families, and the inability of school systems to meet the diverse needs of all learners, resulting in an entrenched educational dilemma.

Like the marginalized families in these studies, my research has revealed that many families residing in Wolf Pack School District lack access to subsidized prekindergarten programming. This community suffers from a lack of two critical resources: availability of high-quality early education programs, and supplementary funding to support families without the

financial or cultural capital necessary to access the prekindergarten programs available. Insufficient access to Head Start and Pre-K Counts programs, combined with the school's inability to qualify for Title One funding, leaves at-risk families with limited resources to prepare their children for a successful transition into kindergarten (PA Keys, 2013; U.S. Department of Education, 2012; U.S. Department of Health and Human Services). Wolf Pack School District lacks the necessary structures to meet the needs of its most at-risk young learners.

Given these challenges, this study will seek to illuminate how educators, parents, and community members might work within the district's current structures or create new structures to meet the needs of all students. All avenues will be considered, including: reallocating resources within current programming; applying for additional assistance from governmental assistance initiatives such as Title One, Pre-K Counts, and Head Start; initiating parental education campaigns; and partnering with other public and private programs to provide increased access and funding. Considering the abundance of research affirming the critical and enduring role pre-k programs play in ensuring a child's timely educational development, making such programs available should be a top priority for all stakeholders, both within the Wolf Pack School District and beyond.

## 1.2 PURPOSE

The initial investigation into the state of kindergarten readiness within the Wolf Pack School District surfaced a complex network of problematic factors that required careful, in-depth review. In framing this inquiry, the context of the local setting was outlined; the aspects of kindergarten readiness were defined; and the relationships between readiness programming,

individuals, communities, and society as a whole were highlighted. Once these parameters were established, this researcher proceeded to examine the effects of socioeconomic status upon kindergarten readiness, as well as the governmetal structures, policies, and programs that have been put in place to support it.

Drawing upon this primary and secondary research, the analysis which follows will review the relationship of access to prekindergarten programming on student readiness within the specific context of Lone Wolf Elementary in the Wolf Pack School District. It will evaluate and call attention to the current prekindergarten opportunities available in the community while also endeavoring to identify the factors which influenced the ability of Lone Wolf families studied to provide prekindergarten opportunities for their child(ren). Finally, it will offer school and community leaders within the Wolf Pack School District recommendations for improving existing prekindergarten structures and their shortcomings, information which this researcher hopes will assist the district and the community in providing more comprehensive and encompassing programs for its young people in the future.

## 1.3    RESEARCH QUESTIONS

In order to shape an effective research plan, I first had to identify the appropriate questions to guide my investigation into the early education accessibility barriers facing Lone Wolf Elementary students. These queries would serve to generate discussion, exploration and eventually, recommendations to guide stakeholders in providing more opportunities to the prekindergarten students in the Wolf Pack School District. The following questions provided a

foundation on which to build a more complete understanding of existing kindergarten preparatory programming within the Wolf Pack district:

Q1: What was the availability level of high quality early education opportunities within the Wolf Pack School District in relation to the needs of the families within the community?

Q2: How did the Wolf Pack School District and local prekindergarten programs ensure that ALL students in the community had access to prekindergarten opportunities?

Q3: How did the Wolf Pack School District work with local prekindergarten centers to align programming in a way that enabled ALL students the opportunity to arrive at kindergarten with the necessary prerequisite skills for success?

## 2.0     REVIEW OF LITERATURE

Walk into any elementary school front office during kindergarten registration season, and it will not be long before you hear a beleaguered secretary utter the words, "I am sorry, but September 1st is the cutoff date. Students must be five years old prior to the first of September in order to enroll in kindergarten."   "Well, why five? What's so special about September 1st?"  Parents often struggle with additional questions as well:

"What academic skills does my child need to have when they start next year?"

"What social skills does my child need to have to be successful?"

"My son turns five this summer; should we enroll him this year, or should we consider starting him a year later?"

Unfortunately, while these concerned mothers, fathers, and guardians hope to receive concrete recommendations backed by widely-accepted academic principles, even experts with decades of kindergarten readiness research at their fingertips still struggle to agree on any "correct" answers. In order to understand this debate, one must first examine the concept of readiness around which it centers.  Telegdy (1974) framed readiness in terms of academic and social characteristics of kindergarten children that helped to predict their future scholastic success, and Russell (1966) stated that, "the idea of having a set age standard for determining when children start school probably is unwise in that children do vary in maturity at any given age" (p. 71). These studies suggested that chronological age was an imprecise measurement for

gauging kindergarten readiness. However, within this same study, Russell (1966) also suggested that it was generally better for schools to enroll children at the earliest practical age, placing the responsibility of kindergarten readiness squarely on the shoulders of the school system while conceding the importance of considering the effects of the home life of each individual student. These findings suggest that the search for that one 'right' way of identifying readiness should be shifted towards finding that one 'right' answer for each and every individual child based on his or her unique developmental progress; they also highlight the complex and paradoxical nature of the task of setting concrete standards by which to evaluate preparedness.

Following the implementation of President Obama's "Preschool for All" initiative, the drive to improve kindergarten readiness levels was extended to preschools and beyond, with communities, schools, and other organizations promoting prekindergarten programs, birth-to-five initiatives, and even "womb to tomb" educational campaigns. As funding and support from governmental, non-profit, for-profit, and parochial institutions mustered behind this growing push for preparedness, school districts strove to strategically deploy these resources not only in an equitable manner, but also in ways that would address the individual needs of each student.

## 2.1    KINDERGARTEN READINESS

What does "ready to learn" actually mean?  This question has been answered differently across the educational landscape. Researchers and educators have yet to settle on a single definition of school readiness. However, most attempts to define the concept share a few common themes: basic knowledge accumulated; cognitive, linguistic, and physical development; social and emotional maturity; and learning styles (Graue, 1992; Wesley & Buysse, 2003; Cassidy, Mims,

Rucker & Boone, 2003).  In addition to these child-centered readiness indicators, researchers also scrutinized the readiness of schools and communities to meet the needs of diverse populations of young children and their families (Graue, 1992; Cassidy et al., 2003; Ackerman and Barnett, 2005).

While debates about readiness standards, kindergarten assessments, and other related topics persisted, students of all ages and preparedness levels continued to enter kindergarten programs that were equipped with no verified strategies for addressing these deficiencies, even though significant age differences alone had been shown to have a serious and enduring impact upon students' achievement levels throughout their education (Diamond, 1983; Datar, 2006; Dhuey & Lipscomb, 2008).

Some researchers have posited that rather than working to proactively influence the readiness of students, academics and educators should focus on preparing schools to meet the needs of students who would inevitably begin their educational careers on unequal footing (Graue, 1992; Cassidy et al., 2003). The inquiries into readiness standards previously cited demonstrate that educators have the ability to identify a child's level of development (Graue, 1992; Taylor et al., 2000; Cassidy et al.; 2003); presumably, then, they should be able to influence it as well. In other words, while readiness is often viewed as an individual student's ability to perform certain tasks, the ability of educators to evaluate a child's developmental state upon kindergarten entry could instead be harnessed to "ready" schools to anticipate and respond to this student's needs. Educators should also be taught how to consider a student's strengths, interests, and social and cultural background as they endeavor to devise and implement developmentally appropriate curriculum (Cassidy et al., 2003).

In spite of this interesting research paradigm shift towards preparing schools for their entering students, rather than preparing the students to enter school, certain consistent findings have upheld the pivotal importance of pre-kindergarten preparation. Specifically:

1) When learning gaps between individual children and demographic groups existed upon entrance into kindergarten, these deficits generally persisted throughout the students' academic careers (Taylor et al.; 2000), and

2) The children who fared best tended to have spent their earliest years surrounded by interactive resources and learning experiences, such as those available in high quality preschools.

These consistent observations indicate that while it is useful to develop the capacity of the schools to meet the needs of disparately prepared students, it is at least as important for stakeholders to provide children with the rich learning opportunities required to arrive at kindergarten on as equal footing as possible.

A child's level of scholastic readiness is determined by a confluence of several key factors. Ackerman and Barnett (2005) observed that a student's readiness to enter school depended on the expectations of the kindergarten program, the quality of support offered by the program facilitators, and the types and levels of skills acquired by the child prior to entering the classroom. Recognizing that the rigor of kindergarten curriculum has increased (Taylor et al.; 2000; Cassidy et al.; 2003; Ackerman & Barnett, 2005), teachers, parents, and researchers feel even more compelled to find ways to institutionalize structures to respond to address the diverse needs of their incoming students (Ackerman & Barnett, 2005). If these determined advocates hope to succeed, the research outlined herein demonstrates that they will need to identify and

implement effective preparedness interventions both on the home front and in the classroom (Ackerman & Barnett, 2005).

## 2.2 PREKINDERGARTEN PROGRAMS

Through assessment and/or observation, in recent decades, kindergarten teachers have readily and regularly identified students who seem significantly underprepared to commence with a formal education (Ackerman & Barnett, 2005). Kindergarten teachers have identified a variety of factors that may signal a lack of readiness, ranging from cognitive, academic, and social skills to an inability to focus on a task during independent or group work (Rimm-Kaufmann, Pinta & Cox, 2000). Escalating reports of readiness deficits from educators, coupled with a national push to strengthen the public education system as a whole, have called attention to the impact of structured and early kindergarten readiness initiatives. One of the primary motivations for focusing on these programs is the hypothesis that preventing learning deficits early on is far more affordable and achievable than addressing them later in the educational process at which point they will have most likely widened significantly and perhaps irreparably (Ramey, Yeates & Short, 1984). Research has shown that students who arrive to kindergarten from high quality preschool programming are less likely to require special education services throughout their school career (Schweinhart, 2003; Temple & Reynolds, 2007; Heckman, Moon, Pinto, Savelyev & Yavitz, 2010).

Many experts have found that high quality preschool opportunities lead to school readiness (Currie & Thomas, 1993; Taylor et al.; 2000; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007). These researchers have also suggested that the positive impacts of starting

school with the cognitive, academic, social-emotional, and behavioral foundations necessary for success have a tendency to snowball (Duncan et al.; 2007). Students who show up for kindergarten with basic math, literacy, and attentiveness skills have been found most likely to experience academic success. Spring-boarding off their early successes, these students tend to quickly move on to tackle new and ever more challenging material, rapidly putting them several steps further ahead of their less equipped classmates (Duncan et al.; 2007).

Evidence supporting the idea that certain types of high-quality preschools can have both short- and long-term positive effects on students has been mounting for decades (Ramey et al., 1984; Currie & Thomas, 1983; Barnett, 1998; Schweinhart, 2003; Currie 2007; Cascio & Schanzenbach, 2013). Three high-profile experimental preschool programs have been the primary (and most promising) subjects for review and longitudinal studies of these impacts. The Carolina Abecedarian Project, the High/Scope Perry Preschool Program, and the Chicago Child-Parent Centers were all model programs which yielded significant returns for the students, parents and the communities they served (Temple & Reynolds, 2007). Compared with other children within these communities, students enrolled in each of the three programs have been found to be less likely to require special education services, more likely to graduate, and also more likely to attend college (Schweinhart, 2003; Temple & Reynolds, 2007; Heckamn et al.; 2010). Individually, the programs also showed a positive impact in the following areas when data were available: arrest rates by age 19 (decreased), employment rates at age 27 (increased), and monthly earnings at age 27 (increased) (Schweinhart, 2003; Temple & Reynolds, 2007; Heckman et al.; 2010).

However, critics have argued that these model programs cannot be replicated at scale, and that returns from larger public programs demonstrate far weaker effects than those of these

"ideal" programs (Barnett, 1998). While this may be true in the sense that changes and controls are easier to implement in small-scale model programs, other researchers have shown that public or universal programs can, in fact, enhance school readiness across a broad group of students (Gormley et al., 2005; Currie, 2007; Temple & Reynolds, 2007; Phillips & Meloy, 2012). Although most of the studies demonstrating positive effects have studied "model" programs, Wong, Cook, Barnett, and Jung (2009) took a close look at five state-run programs and determined that the programs did indeed have a positive effect on cognitive readiness. Wong et al.'s (2008) work, coupled with the research conducted by Puma, Bell, Cook, Heid and Lopez (2005) on the effectiveness of Head Start programming, demonstrated that scalable programs could have positive impacts on students' readiness levels. Knowing that both model programs and programs delivered at scale can enhance student preparedness, is it then not the job of the practitioners to identify and implement the readiness program or programs which will have the greatest influence on the individuals within their system?

## 2.3    SOCIOECONOMIC STATUS

School or kindergarten readiness has been linked to the socioeconomic status of the family (Halle et al.; 2009; Dotterer et al., 2012). Lee and Kao (2009) examined kindergarten readiness through the lens of Bourdieu and Passeron's (1979) cultural capital theory, which held that middle-class and upper-class students' privileged positions within society fostered greater levels of educational success within these groups (Sullivan, 2001). Cultural capital is defined as the skills, tools, and resources that the middle and upper classes transfer to their children to assist these offspring in increasing their own economic capital; readiness facilitation is among the first

and most powerful of these privileges (Bourdieu, 1977). Wealthier children have been found more likely to grow up with readiness-facilitating lifestyle factors like immersion in vocabulary-rich environments, engagement in rich learning experiences, and access to high-quality preschools. Dotterer (2006) has also stated that a parent's wealth and educational attainment can have a positive influence on the variety and abundance of learning settings during a child's formative years. Therefore, a child from a high SES (socioeconomic status) family is likely to encounter frequent and high-quality educational opportunities both at home and in other settings beyond it (Duncan et al., 2007). On the contrary, children from low SES households often do not have access to the breadth and depth of learning experiences necessary to adequately prepare them for kindergarten (Duncan et al., 2007).

Finn (2009) has called to address this disparity by providing low SES children with access to performance-boosting rigorous pre-kindergarten programs. By participating in a pre-kindergarten program aimed at narrowing the learning gaps that have historically trapped these students in less than desirable educational experiences, these children will be more likely to arrive at kindergarten 'ready' to succeed. While the campaign for universal preschool has generally been perceived as a step in the right direction, some researchers (Currie & Thomas, 1993; Finn, 2009; Cascio & Schanzenbach, 2013) believe that a more targeted approach is necessary—that practitioners, educators and politicians alike should focus on intensive programs for the most at-risk students, often identified by their low socioeconomic status and/or their lack of cultural capital, rather than on blanket programs aimed at increasing kindergarten access in general. Thus, the challenge facing educators and school districts is to create a process that will level the playing field for all incoming students.

For decades, scholars, researchers, educators, government officials, and activists across the country have striven to address the achievement gap that persists between the children of America's most and least privileged households. In terms of wealth, students have often been viewed on a scale that rates their socioeconomic status. Dotterer (2006) has stated that, "although there is no one agreed upon definition of SES, scholars have conceptualized SES as income, education, occupation, welfare recipient, or some combination of these factors" (p.658). In recent achievement gap studies focusing on preschool education's influence on kindergarten readiness, student SES has been one of the most closely studied factors (Duncan et al., 2007; Dotterer, 2006; Dotterer et al., 2012).

Differences in cognitive abilities upon kindergarten entry have been linked to SES (Larson, Russ, Nelson, Olson, Halfon, 2015), with studies citing health, home learning, parenting, and early education as contributing factors. The identification of such specific factors may assist in the formation of targeted interventions for overcoming the inequalities exhibited by our youngest learners.

In addition, Finn (2009) has focused on the cultural capital-driven readiness advantages that middle-class and upper-class children enjoy simply through their exposure to attentive, educated parents, grandparents, and other adults. One theory that touches on this cultural capital impact is the principle of the "30-million-word gap" (Hart & Risely, 2003), which contends that by the age of three, the average vocabulary of a child from a wealthy home will be 30 million words larger than that of a child from a poorer home. In order to eliminate and halt the continued expansion of this gap, early educational interventions are a necessity.

## 2.4    GOVERNANCE STRUCTURES

During the research phase of this review, the policies and subsequent programs that currently exist to support kindergarten readiness were examined. Programs included Federal Head Start, Title One preschool funding, and Pennsylvania Pre-K Counts. These initiatives have contributed to the development of subsidized early childhood learning centers and preschools designed to help young learners from disadvantaged backgrounds meet kindergarten readiness expectations. As established earlier in this study's literature review, it has been shown that students with access to high-quality preschool programs tend to enter kindergarten with higher readiness levels than their non-program peers (Taylor et al., 2000; Duncan & Magnuson, 2013).

### 2.4.1   Head Start

In 1964, when President Lyndon B. Johnson declared a 'War on Poverty,' he and other powerful politicians, researchers, and educators set in motion the program that is now known as Head Start (U.S. Department of Health and Human Services, 2012). Originally structured as an eight-week program, Head Start was intended to help give disadvantaged preschool students equal preparedness footing with higher income students by focusing on the readiness aspects of emotional and social well-being, health, nutrition, and psychological development (U.S. Department of Health and Human Services, 2012). Today, Head Start has developed into a multifaceted program with a budget of over eight billion dollars, providing services which continue to address the emotional, social, health, nutritional and psychological needs of at-risk children and their families, in large part by providing them with access to high quality preschool opportunities (U.S. Department of Health and Human Services, 2012).

### 2.4.2   Title One preschool funding

The U.S. Department of Education, recognizing the importance of establishing a solid developmental foundation in a child's formative years, set strict guidelines for the use of Title One funds to implement high quality preschool programming (U.S. Department of Education, 2012). There are two ways to distribute Title One funding for pre-k education. The first option is to develop a school-wide model which a district must demonstrate that at least forty percent of the population it serves identify as low income (U.S. Department of Education, 2012).   The second option is to develop a targeted assistance program in which supplemental services may be provided to students that are most at risk for learning handicaps (U.S. Department of Education, 2012). Both of these options utilize Title One funds to target low-income families in an effort to proactively address the substandard readiness levels likely to afflict these populations.

### 2.4.3   Pennsylvania Pre-K Counts

The Pennsylvania Pre-K Counts program is a state funded initiative aimed at meeting the preschool needs of at-risk three- and four-year-olds. In order to qualify for Pre-K Counts funding, students must meet family income requirements as well as one of several possibly risk factor criteria (PA Keys, 2013). Examples of such risk factors include: English Language Learner (ELL), child welfare, and developmental delay (PA Keys, 2013).  A child subject to one or more of the designated risk factors, while also living with a family falling below 300 percent of the national poverty level, is eligible for admission into the program (PA Keys, 2013).

The Pennsylvania Pre-K Counts program is similar in structure to the Federal Head Start program and, in many cases, the same gatekeepers/grant controllers provide oversight for both

programs. In light of the overlap which has developed, many programs across the Commonwealth of Pennsylvania have blended state and federal initiatives in an effort to draw upon multiple funding sources to maximize their support of early education programs.

## 2.5    THEORIES, PRACTICES, POLICIES

This literature review surfaced various theories, practices, policies, and contradictory theories which have further shaped and refined my understanding of the concept of kindergarten readiness. First of all, the lack of a generally accepted definition for kindergarten readiness makes much of the research on this topic open to interpretation and provides for a variety of avenues by which to pursue further study. Second, the theory that the burden of readying children for kindergarten should be placed on the shoulders of the schools, which should be expecting and prepared to receive children at all different developmental levels, seems to lie in direct contrast to the belief that children should arrive at kindergarten 'ready' to perform certain tasks and functions. Third, the idea that a teacher, school, or community's concept of readiness might influence student learning led me to question how adult learning may influence kindergarten readiness and, ultimately, student learning. All of these insights would inform my subsequent primary research.

Through this literature review, I had hoped to identify a researchable question or set of questions to guide my inquiry into the causes, outcomes, and possible solutions surrounding the phenomena that has become known as kindergarten readiness. Exploration of the literature expanded my musings about the concept and the many facets from which it has been approached. As I continue my analysis of the topic here in this treatise, I will focus on the idea of developing

a high quality readiness system within the local context to support the needs of all young learners.

# 3.0    METHODS

The following plan was developed to study the current prekindergarten opportunities available to students and families in the communities that makeup the Wolf Pack School District.  In an effort to better understand, explain, and address the current state of these prekindergarten education opportunities, I focused this plan on obtaining insights into the following questions:

1. What prekindergarten education opportunities currently exist within the Wolf Pack community, and how well do they prepare children to meet district expectations of school readiness?

2. How do the Wolf Pack School District and local prekindergarten programs currently ensure that ALL students in the community have access to prekindergarten opportunities?

3. How do Wolf Pack's elementary schools work with local prekindergarten centers to align their programming to give all students the opportunity to arrive at kindergarten with the prerequisite skills for success?

## 3.1    UNDERSTANDING THE CONTEXT

Beginning in 2014, in response to a multi-year increase in the number of children enrolling in kindergarten without possessing the basic skills deemed necessary for kindergarten readiness, the Wolf Pack School District launched new programs in order to better serve the needs of its young learners. Two of these new initiatives were: 1) the development of an all-day kindergarten program, and 2) a partnership with the community library which culminated in the launch of a book bus. Both of these initiatives have increased access to readiness resources for the families of the Wolf Pack district to some degree.

Unfortunately, my research has revealed that this community still lacks a key readiness resource: a system for providing low-income families with funds to subsidize enrollment in high-quality preschool programs—the types of programs that have been found to be vital in preempting the formation of achievement gaps between students from disparate SES backgrounds. Research has consistently indicated that attending a high-quality preschool program enhances disadvantaged students' ability to close the academic gap with more affluent classmates, despite that fact that these higher SES students have likely experienced more high-quality learning experiences in their home lives (Currie & Thomas, 1993; Taylor, Gibbs & Slate, 2000; Finn, 2009; Furlong & Quirk 2011; Cascio & Schanzenbach 2013).

Wolf Pack School District's socioeconomic diversity was measured in the 2009 American Community Survey (U.S. Census Bureau, 2009), which recorded that 15.2% of the households within the district fell below the poverty line, while 7.5% of households generated over $150,000 a year. Disparities such as these were also quite evident across the district's three elementary schools. According to the Pennsylvania Department of Education Food and Nutrition Division (2016), these three schools exhibited wide variations in their proportions of families

qualifying for the free and reduced lunch program. Alpha Elementary reported a lunch assistance program enrollment of 11.3%, Beta Elementary estimated a participation level of 18.6%, and Lone Wolf Elementary declared a subsidy qualifying rate of 28.8%. Other relevant studies have shown that such sizable differences in socioeconomic status often manifest themselves as glaring disparities in kindergarten readiness levels between student groups. For example, Duncan and Magnuson (2013) have highlighted reading achievement gaps between quintiles at the extremes of the economic spectrum. These considerable socioeconomic gaps, combined with other complicating factor such as cultural diversity between neighborhoods, a lack of reliable public transportation within the community, and the Wolf Pack district's sprawling size, presented significant challenges for connecting at-risk children with critical school preparedness resources.

Given these complexities, how might such a socioeconomically-fragmented district address the cognitive gaps generated between the ages of birth and five? This examination of kindergarten readiness at Wolf Pack provided valuable insight into the challenges faced by families lacking the economic, informational, and influential resources to secure for their preschool-aged children the advantages necessary to facilitate their future academic success. Lone Wolf Elementary School, with its 500-student body of K- through 5th-graders, has historically hosted a higher population of at-risk students than has Alpha or Beta Elementary, providing an opportunity to study a representative sample of students from across the diverse communities served by the district. In a larger context, Wolf Pack School District provided a unique setting in which to conduct this inquiry in that it is the geographically largest school district in Territory County. The three communities that comprise the district grew rapidly in the 1990s due to the relocation of Wolf Den Airport into its borders, quickly transforming the small rural farming populations into an expanding suburban district. A number of single-family

housing developments within the district included homes valued at well over $1,000,000 at the time of a recent American Community Survey (U.S. Census Bureau, 2009). In spite of the rise in the overall economic wellbeing the local residents it serves, however, Wolf Pack also contains a number of diverse housing subdivisions and neighborhoods populated by low SES families, including nine mobile home parks, two Section 8 housing developments defined by Cuts and Olsen (2002) as subsidized, privately owned rental units for low income families. Another factor which has contributed to the widening socioeconomic diversity of the families served by Wolf Pack is the district's location within a tier-three suburb sitting at the far reaches of public bus ways. A tier-three suburb can be defined as a non-culturally-unified community with detached houses, consisting of predominantly middle-class families and scattered employment (Forsyth, 2012). The relative geographic and social fragmentation that pervades many tier-three communities often makes it difficult for low SES families to access the kinds of support services most likely to transmit short- and long-term benefits to their developing children.

## 3.2    STAKEHOLDER PERSPECTIVE

Kindergarten readiness influences a wide array of stakeholder groups, including students, parents, preschool teachers, kindergarten teachers, school administrators, prekindergarten program operators, taxpayers, and government officials. Ultimately, the most important stakeholders to consider when studying kindergarten readiness are the students. Research has shown that preschool attendance contributes to school readiness (Currie & Thomas, 1993; Taylor et al., 2000; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007), and that students'

educational futures can be greatly influenced by their ability to access prekindergarten programming.

From an organizational perspective, it is much more financially prudent to invest in early education programs designed to prevent the formation of developmental gaps between groups of pre-k students, rather than face the much higher costs of attempting to address the effects of these disparities later in the educational process (Ramey, Yeates & Short, 1984). Students who arrive to kindergarten from high quality preschool programming are less likely to require special education services throughout their school careers (Heckman, Moon, Pinto, Savelyev & Yavitz, 2010; Schweinhart, 2003; Temple & Reynolds, 2007). By providing students with access to high-quality prekindergarten programs, communities greatly increase the likelihood that their students will enter school with the skills needed to begin their formal education.

## 3.3    INQUIRY APPROACH

In 2015, Yazan said of Merriam's view of case study research, "as long as researchers are able to specify the phenomenon of interest and draw its boundaries, or 'fence in' what they are going to inquire, they can name it a case" (p. 139). Yazan's take on defining a research question resonated with me as I pondered how to best approach my investigation of prekindergarten resource availability within Wolf Pack School District. As a researcher, I chose to draw the borders of my study along the boundary lines of the Wolf Pack School community and the network of the pre-k programs serving the families therein, investigating these prekindergarten programs in terms of location, enrollment capacity, tuition structure, and funding sources, as well as their ties to the district and associated structures. In doing so, I developed a more complete understanding of the

obstacles hindering students from accessing programs and of the scholastic readiness gaps that have persisted between different segments of the community. Utilizing a mixed-methods approach that included interviews, secondary data analysis, and document review, I compiled a comprehensive situational analysis that would inform an action plan to align community and school programs and resources to better serve students-to-be.

Method 1: I conducted a secondary analysis of a collection of kindergarten enrollment forms submitted by parents in preparation for the 2016-2017 school year. The information self-reported on these forms provided information about the preparatory resources students of that year's class had accessed prior to entering in the Wolf Pack School District. These documents were vital, as knowing which pre-k resources, if any, had been accessed by each student would make it possible to identify associations between preschool attendance and subsequent academic preparedness. Measurements of this second factor were gleaned from the results of a kindergarten assessment which was administered to all students after entering elementary school. Finally, the pre- and post-enrollment documents were analyzed for possible correlations. Descriptive statistics were used to show and explain patterns within and across the student groups who had and had not attended preschool.

Method 2: A review of pre-k program center documents, including parent handouts, enrollment packets, advertisements, and demographic data, provided a deeper understanding of local prekindergarten programs and their strategies for building and maintaining enrollment. These documents also offered insights into the center enrollment structures and capacities. The data collected through this method was used to inform the interview protocol I would employ when directly questioning the directors of these programs.

Method 3: During my study of the program center documents, I also examined expectation guides, post-assessments, and curriculum guides, as well as the assessment tool used by Wolf Pack School District and Pennsylvania Standards for Prekindergarten. My review of these documents helped highlight additional patterns and/or gaps that between the existing Pennsylvania Standards for prekindergarten, district expectations, and prekindergarten program goals, and these emerging themes provided the basis for a coding system by which to study other available documents.

Method 4: Interviews with prekindergarten program center directors helped provide a comprehensive understanding of the individual programs functioning in the Wolf Pack community and the ways in which they support students and families. These interviews focused on a program's organizational systems, cost structures, current capacity, potential capacity, advertising and recruitment tactics, and expectations for program outcomes. They also outlined the amounts and types of programming available (e.g., programs starting at the 3-year-old versus 4-year-old level), funding structures (federal, state, local), tuition structures, and program designs, all of which enhanced my knowledge of how the community's programs were meeting the diverse needs of its youngest learners.

Initially, I began the coding process with a deductive focus on the major themes from the literature. Saldana (2016) indicates that deductive coding is initiated with a list of codes developed by the researcher to align with prior research and the framework of the study. When beginning the coding process, I focused on the themes of government structures, socio-economic status and student readiness levels. As the investigation progressed new themes such as pride in the program, the issues of space, time and money, and the importance of interaction, collaboration and relationships emerged. Saldana (2016) recognizes the use of these data driven

codes as an inductive coding style.  Employing a combination of deductive and inductive coding allowed me to paint a more comprehensive and clear picture of the current state of pre-k education within the Wolf Pack community.  The iterative process of connecting the literature, my prior knowledge of the system and the findings of my research allowed me to build a comprehensive set of codes and themes.

**Table 1.** Inquiry Questions, Evidence, Methods and Analysis

| Inquiry Question | Evidence | Method | Analysis |
|---|---|---|---|
| 1. What prekindergarten education opportunities currently exist within the Wolf Pack community, and how well do they prepare children to meet district expectations of school readiness? | A. Interview transcripts from prekindergarten program directors<br><br>B. Prekindergarten enrollment documents<br><br>C. Student Data | A. Interview protocol with prekindergarten program directors<br><br>B. Review of prekindergarten center documents<br><br>C. Secondary data analysis | A. Identification of emerging themes among local prekindergarten programs<br><br>B. General analysis of opportunities and program curricula<br><br>C. Descriptive statistics showing enrollment in comparison to qualifications for the National School Lunch Program (NSLP) |
| 2. How do the Wolf Pack School District and local prekindergarten programs ensure that ALL students in the community have access to prekindergarten opportunities? | A. Kindergarten enrollment documents<br><br>B. Interview transcripts from prekindergarten program directors<br><br>C. Curriculum and standards | A. Review of kindergarten enrollment data<br><br>B. Interview protocol with prekindergarten program directors<br><br>C. Review of Curriculum and Standards documents | A. Descriptive statistics to outline prekindergarten enrollment<br><br>B. Analysis of kindergarten readiness standards and prekindergarten program expectations<br><br>C. Analysis of emerging themes from review of program documents. |
| 3. How do Wolf Pack's elementary schools work with local prekindergarten centers to align their programming to give all students the opportunity to arrive at kindergarten with the prerequisite skills for success? | A. Interview transcripts from prekindergarten program directors<br><br>B. Curriculum and standards | A. Interview protocol with prekindergarten program directors<br><br>B. Review of Curriculum and Standards documents | A. Analysis of emerging themes generated from interviews with program directors.<br><br>B. Analysis of emerging themes from review of program documents. |

## 3.4    PROPOSED PRODUCT

The increasing proportion of kindergarten students arriving at Lone Wolf Elementary without the basic literacy and math skills expected for their age levels led stakeholders to raise question why some students have not attended prekindergarten programs at ages three and four. This inquiry helped spark by comprehensive investigation enrollment into pre-k programming quality and availability within the Lone Wolf district, as well as attitudes toward the importance of preschool enrollment and the structures in place to subsidize it for families in need. Patterns found in the data collected through the inquiry methods specified herein painted a vivid picture of the early education deficits afflicting the community. This understanding, in turn, informed the development of a comprehensive prekindergarten report, a policy brief that assessed the current pre-k programs and offered recommendations for strengthening their existing processes and structures.

In developing the policy brief, my research focused first focused on the state of prekindergarten education in the Wolf Pack School District, then honed in more specifically on these programs' influences on the kindergartners at Lone Wolf Elementary (the most economically challenged of the district's three elementary schools). The structure and delivery of the policy brief were selected to provide the board of school directors with practical, research-backed recommendations for strengthening prekindergarten systems. Ultimately, the brief proposed strategies for creating a more robust prekindergarten program structure aimed at maximizing the number of students arriving to kindergarten satisfactorily prepared to learn.

# 4.0    FINDINGS

Chapter Four will discuss prominent themes aligning with the three research questions set forth in the exploration of kindergarten readiness opportunities. Data collected through secondary data analysis, interviews with program center directors, and a review of program center documents have all been used to shape a lens through which to the following research questions will be examined:

Question 1: *What prekindergarten education opportunities currently exist within the Wolf Pack community, and how well do they prepare children to meet district expectations of school readiness?*

Question 2: *How do the Wolf Pack School District and local prekindergarten programs ensure that ALL students in the community have access to prekindergarten opportunities?*

Question 3: *How do Wolf Pack's elementary schools work with local prekindergarten centers to align their programming to give all students the opportunity to arrive at kindergarten with the prerequisite skills for success?*

## 4.1     ACCESS FOR ALL

A total of 85 students enrolled in the Lone Wolf Elementary Kindergarten Class of 2016-2017. My secondary review of kindergarten readiness assessment data showed that ten of the 85 students (11.8%) had not participated in prekindergarten programming. Deeper examination indicated that 29 students (34.1%) had attended prekindergarten centers located outside the geographical boundaries of the Wolf Pack School District, while the remaining 46 students (54.1%) had accessed one of seven prekindergarten centers within the Wolf Pack School District. For the purpose of this study, the researcher focused on the ten learners who had not participated in formal pre-k programs, the 46 learners who had attended programs within the community, and the seven centers within the district in which this later group of children had been enrolled.

Enrollment records from these pre-k programs during the 2015-2016 school year revealed that the children who would later constitute the Lone Wolf kindergarten class of 2016-2017 were distributed among the programs in groups ranging from two to as many as 15 learners per center. Table 2 details this distribution by center, while also capturing the ten students that did not attend any official program. Note that the total number of children listed in exceeds 56 learners by one, as one child was enrolled in two centers during the same year.

**Table 2.** Prekindergarten Enrollment of 2015-2016 Lone Wolf Kindergarten Students

| School Name (Pseudonyms) | Number of Future Lone Wolf Students Enrolled During the 2015-2016 School Year |
|---|---|
|  |  |
| PA WEE School | 15 |
| Ross Prekindergarten | 9 |
| Cat Learning Center | 8 |
| The Early Learning School | 5 |
| Early Start | 5 |
| Valley | 3 |
| Welcome Child | 2 |
| No Prekindergarten Experience | 10 |

### 4.1.1 Socioeconomic standing

When the connection between socioeconomic standing and the ability to access prekindergarten programming were examined by comparing lunch subsidy recipients with pre-k program attendance, some interesting correlations came to light. Twelve of the 46 students who had accessed local prekindergarten programming (30.4%) qualified for free or reduced lunch through the National School Lunch Program, while seven of the ten students that had failed to access prekindergarten programming (70.0%) were eligible. Table 3 examines the data by total students, the number of children who received free lunches, and the number who received reduced price lunches. The data shows that of the 14 students who received free or reduced lunches and had also attended pre-k, eight (57.1%) had attended the prekindergarten program with the lowest tuition fee ($125 per year). These observations suggest a link between socioeconomic status and the ability to access high-quality prekindergarten programs. This connection aligns with the work of Duncan et al. (2007), which indicates that students raised in a high SES home experience richer learning environments both within and beyond the home than their lower SES classmates.

**Table 3.** Prekindergarten Enrollment and National School Lunch Program Eligibility Rates for the Lone

Wolf Kindergarten Class of 2016-2017

| Pre-K Program Access | Total Students | Qualified for Free Lunch Program | Qualified for Reduced Lunch Program | Percentage Qualifying for Free and Reduced Lunch Program |
|---|---|---|---|---|
|  |  |  |  |  |
| Attended Prekindergarten Programs | 46 | 12 | 2 | 30.4% |
| Had Not Attended Prekindergarten Programs | 10 | 5 | 2 | 70.0% |

### 4.1.2   Prekindergarten centers

While coding transcripts from interviews with prekindergarten center directors to identify factors

that might influence pre-k access, four key themes emerged: cost structures, current enrollment,

funding, and available space/waitlists. Program directors consistently raised concerns about

waitlists, families not being able to afford program tuition, funding structures, and classes that

reached or exceeded maximum capacity.

Directors at PA Wee School, which served 15 future Lone Wolf kindergarten students,

indicated that its tuition fees of $125.00 per year for its three-days-a-week program for four-

year-olds and $75.00 per year for its twice-weekly program for three-year-olds were affordable

for most families. However, even at this relatively low cost, the directors indicated that they had

needed to establish payment plans for multiple students over the years. The program is funded

solely through tuition and receives no federal, state, or local monies to support its operation.  The

directors stated that the program had the capacity to serve 32 three-year-olds and 32 four-year-

olds. At these enrollment levels, the administrators were forced to waitlist applicants each year, leaving most these children without an accessible alternative. In order to boost the capacity of the program to 40 three-year-olds and 40 four-year-olds, which the directors indicated was their goal, they would need to obtain additional space.

Directors at Ross Prekindergarten, which hosted nine future Lone Wolf kindergarten students, reported tuition rates of $82.00 per month for a twice–weekly three-year-old program and four-year-old program rates ranging from $88.00 to $90.00 per month depending on the session (two or three classes per week). The program had the capacity to serve 60 three-year-olds and 72 four-year-olds. Directors indicated that, at the time of the interview, there was a waitlist for the three-year-old program; while they reported that they had also waitlisted their four-year-old program in the past, during the 2015-2016 academic year, five spots were unfilled. The directors indicated that the students attending their program were not strictly Wolf Pack students, with children hailing from the geographical boundaries of six other regional districts. Funding was limited solely to registration fees; the program directors reported no regular federal, state, or local governmental assistance for the program. Private donations had occasionally been procured to provide funding for hardship cases, and the directors also mentioned the use of fundraisers to support activities and trips for the students.

CAT Learning Center served eight future Lone Wolf Kindergarten students. According to the program directors, the price of enrollment for the three-year-old prekindergarten program was $144.00 dollars per month and $180.00 per month for the four-year-old program. Both classes operated five days a week. At the time of the interview, the capacities of the three-year-old program and the four-year-old program were both 30 students each. The administrators indicated that both programs were full to capacity during the 2015-2016 term and that the three-

year-old program had a waitlist. Follow-up questions revealed that it was not unusual for a class to waitlist four or five children each year. Both programs were funded through registration fees, but the director also reported that some students were subsidized through Child Care Information Services (CCIS), a need-based program that helps low-income families pay for childcare (Pennsylvania). Each year, CAT Learning Center receives students from three counties and multiple districts, reducing the availability of seats for Wolf Pack students.

The Early Learning School enrolled five future Lone Wolf Kindergarteners. Directors from the Early Learning School stated that the three-year-old program had a maximum capacity of 24 students and that the four-year-old program could serve 32 students. The staff stated that there were waitlists for both programs and expressed concern that the students on the waitlist might not receive any formal prekindergarten education at all. The Early Learning School offered a four-year-old program that ran four days per week at a cost of $135.00 per month, while the three-year-old program operated two days per week at a cost of $82.00 per month. This pre-k center was funded through tuition alone, compelling the administrators to request additional fees from parents in order to provide enrichment activities like field trips or specialized educational programs.

Early Start provided pre-k services to five students from the 2016-2017 Lone Wolf kindergarten class. Early Start ran a three-year-old program two days a week and a four-year-old program three days per week. The three-year-old program had a capacity of 40 students and the four-year-old program had a capacity of 48 students. Early Start's four-year-old program charged tuition of $95.00 per month, while access to the three-year-old program cost $85.00 per month. Early Start did not receive any federal, state, or local subsidies; the program relied solely on

tuition fees. Early Start reported having students on waitlists for both the three-year-old and the four-year-old classes.

Valley enrolled three future Lone Wolf Kindergarten students in its three-year-old and four-year-old programs. The three-year-old program operated two days a week at a cost to each student's family of $70.00 per month, and the four-year-old program operated three days per week with per-student tuition of $80.00 per month. Valley did not receive any federal, state, or local funding, operating on tuition alone. Capacity at Valley stood at ten students per age group. At the time of the interview, administrators indicated that Valley's three-year-old program had a waitlist, while the four-year-old program had two seats available. When asked about the possibility of expanding the program, the director indicated that both staffing and space presented obstacles to doing so.

Welcome Child provided prekindergarten opportunities for two students from the Lone Wolf kindergarten class in question. Welcome Child offered a five day per week prekindergarten program for three-year-olds and four-year-olds, with a capacity of ten students per age group. The cost of the program was $240 per month. While Welcome Child did not report any federal, state, or local governmental funding, some of the student tuition was paid through CCIS subsidies. Directors at Welcome Child indicated that they had reached maximum capacity at the time of interview and did not have a waitlist; however, they had been compelled to keep waitlists in the past.

The centers in the study consisted of one community based prekindergarten program, three programs that were affiliated with established daycare providers, two programs with religious affiliations and one program that was run as a project center in the local high school.

The high school affiliated program was unique in that it was staffed and run by students under the supervision of consumer science high school teachers as a training opportunity for students.

Table 4 shows a comparative price breakdown for the seven prekindergarten centers at both the four-year-old and three-year-old levels. The listed price of prekindergarten attendance in the Wolf Pack School District ranges from $12.50 a month to $240.00 per month. The hours spent in the program range from 16 to 50 per month, and the calculated price per hour ranges from $0.74 an hour to $6.00 an hour.

**Table 4.** Price of Prekindergarten Programs

| Program | Four-Year-Old Program | | | | Three-Year-Old Program | | | |
|---|---|---|---|---|---|---|---|---|
| | Price/ Month | Hours of Instruction/ Month | Price/ Hour | Capacity | Price/ Month | Hours of Instruction/ Month | Price/ Hour | Capacity |
| PA WEE School | $17.86 | 24 | $0.74 | 32 | $12.50 | 16 | $0.78 | 32 |
| Valley | $80.00 | 30 | $2.67 | 10 | $70.00 | 20 | $3.50 | 10 |
| Ross Prekindergarten | $90.00 $88.00 | 30 24 | $3.00 $3.67 | 72 | $82.00 | 20 | $4.10 | 60 |
| Early Start | $95.00 | 30 | $3.16 | 48 | $85.00 | 16 | $5.31 | 40 |
| The Early Learning School | $135.00 | 48 | $2.81 | 32 | $82.00 | 20 | $4.10 | 32 |
| Cat Learning Center | $180.00 | 50 | $3.60 | 32 | $144.00 | 40 | $3.60 | 32 |
| Welcome Child | $240.00 | 40 | $6.00 | 10 | $12.50 | 40 | $6.00 | 10 |

## 4.2    SCHOOL READINESS

Wolf Pack School District assesses students in the April of the year they are enrolled to begin kindergarten. This district-developed measurement tool tests a student's grasp of the following abilities: counting to 20; recognition of numbers 0 through 10; identification of four different shapes; recognition of eight colors; name writing; following simple directions; first sound fluency; uppercase letter recognition; lowercase letter recognition; sound recognition; and high-frequency word recognition. Kindergarten teachers utilize information garnered from this assessment, as well as data from the kindergarten DIBELS (Dynamic Indicators of Basic Literacy Skills) benchmark assessment, to make decisions that guide instructional practices at the start of each school year.

### 4.2.1 Readiness levels summary

Table 5. School Readiness Levels of the Lone Wolf Elementary Kindergarten Class of 2016-2017 Grouped by Prekindergarten Program Attended

| Prekindergarten Program Attended | High-Priority Literacy Indicators: Percent of Students Showing 70% Proficiency | High-Priority Math Indicators: Percent of Students Showing 70% Proficiency | DIBELS Assessment: Percent of Students Meeting Benchmark Expectations |
|---|---|---|---|
| | | | |
| Welcome Child | 100.0% | 100.0% | 100.0% |
| The Early Learning School | 80.0% | 100.0% | 80.0% |
| Ross Prekindergarten | 66.7% | 100.0% | 100.0% |
| Valley | 66.7% | 100.0% | 66.7% |
| CAT Learning Center | 57.3% | 100.0% | 71.4% |
| PA WEE School | 20.0% | 66.7% | 46.7% |
| Early Start | 0.0% | 100.0% | 80.0% |
| Prekindergarten Program Totals | 45.7% | 89.1% | 71.8% |
| No Prekindergarten | 20.0% | 50.0% | 40.0% |

Table 5 provides an overview by prekindergarten program of the percentage of students arriving to kindergarten with the ability to meet expected readiness levels (as measured by the high-priority literacy and math indicators and the DIBELS benchmark assessment).

### 4.2.2 Readiness levels of students who did not attend prekindergarten programs

As reported above, ten students from the Lone Wolf Elementary School kindergarten class of 2016-2017 had not accessed preschool programming. Five of these kindergartners qualified for free lunches and two qualified for reduced lunches through the National School Lunch Program. Upon completion of the kindergarten assessment, eight of the students scored below 70.0% on

the high-priority literacy indicators (as identified by Wolf Pack School District) of first-sound fluency, uppercase letter recognition, lowercase letter recognition, and letter sound recognition. In regards to the high-priority math indicators of counting to 20, 0 to 10 number recognition, shape identification, and color identification, four of the ten students scored below 70.0%. During the first month of school in September of 2016, these students also completed the DIBELS assessment. Secondary review of the DIBELS assessment data indicated that six of the ten students who had not accessed prekindergarten programming would require intensive or strategic support in order to remediate their basic literacy skills.

### 4.2.3 Readiness levels of students attending prekindergarten programs

Secondary analysis of student data that the district utilizes to assess readiness for kindergarten showed that students that attended prekindergarten programs were more likely to meet readiness expectations based on the high-priority literacy indicators, the high priority math indicators and the DIBELS assessment than their peers that did not attend prekindergarten programming. Overall 21 of the students scored above 70.0% on high-priority literacy indicators, and 41 scored above 70.0% on high-priority math indicators. Secondary review of the data from the DIBELS assessment indicated 33 students who had attended prekindergarten programs met benchmark expectations and did not require strategic or intensive remediation.

## 4.3 COLLABORATION

The coded interviews with the pre-k administrators highlighted three themes regarding the expansion and improvement of the programs which they oversaw. First, the directors expressed pride in the programs that they had developed and in the work done with the children and families they served. Second, there was a widespread desire to do more for their students and the students that did not have access to prekindergarten programming, citing shortages of money, space, and/or time as barriers. Third, the directors indicated that they would value interaction, collaboration, and ongoing relationships with not only the school district, but also with the other prekindergarten centers in the area.

### 4.3.1 Pride in programs

When questioned, program directors indicated that they were most proud of relationships they had built with their students and families. The second most frequently discussed topic was the satisfaction derived from seeing their students succeed, first in-person and later on through stories passed on by parents and/or subsequent teachers about a student performing admirably after they have moved on from the program. Other sources of pride among the directors concerned their roles in helping to develop and improve their programs, in ensuring that the preschools provided ample opportunities for play as well as educational preparation, and in providing such affordable programs for the families in the district.

### 4.3.2   Space, time and money

Directors were genuinely excited while speaking about the future of their programs and potential opportunities for growth. The theme that emerged most frequently was the simple desire to increase program offerings. Six of the seven center directors discussed the necessity of instituting waitlists either at the time of the interview or during previous years, and many indicated that they had seriously considered the possibility of expansion at some point. Some directors talked about adding staff, while others spoke of renovating their space, while still others considered simply expanding their class sizes.

Additional topics of conversation regarding expansion of programs and other future initiatives focused on finding ways to expand the days and times of program operation without drastically increasing cost or the ability to serve more students. The expansion of pre-k services was constrained by schedules and space availability that had been in place for years, as well as by funding deficits that limited the subsidies available to make services affordable for local families of all financial backgrounds. The directors indicated that resources were scarce and that curricula and lesson plans were more often than not developed by the teachers with little outside guidance.

### 4.3.3   Interaction, collaboration and relationships

All seven directors indicated that they had had little to no constructive interaction with official representatives from the Wolf Pack School District, and not one director could tell me about a partnership that they had formed with another local prekindergarten center. The overarching theme was that the center directors perceived themselves to be operating on an island; lacking

the support of other stakeholders, they felt as though they were often making it up as they went along.

Each center director said that they would welcome the opportunity to engage in activities with other directors and/or consulting teams from the school district. Directors stated that they felt they could learn from others while sharing ideas and resources of their own. Some interviewees also expressed a desire to observe Lone Wolf Elementary kindergarten classes or have kindergarten teachers from the district observe their prekindergarten programs in an effort to better understand how they could prepare their students for the increasingly rigorous standards of the district.

# 5.0    DISCUSSION AND CONCLUSION

This section will discuss the connections between the archival research reviewed during this inquiry and the findings of my own analyses conducted to address my specific research questions. The following conclusions stem from the intersection between the extant readiness literature and the results generated through the document analysis, interviews, and secondary examination of student data detailed in the present study. Interpretations in the chapter have been limited to the literature reviewed as part of this study and the data available through the investigation of Wolf Pack School District and the seven prekindergarten programs within the district area.

## 5.1    PREKINDERGARTEN OPPORTUNITIES

*What prekindergarten education opportunities currently exist within the Wolf Pack community, and how well do they prepare children to meet district expectations of school readiness?*

In order to ensure proper growth and academic development in young children, research has indicated that preparing schools and communities to meet the needs of diverse student populations is just as critical as promoting student readiness (Graue, 1992; Cassidy et al., 2003; Ackerman and Barnett, 2005). The examination of coded interviews with directors; secondary analyses of student data; and comparative studies of prekindergarten program documents

highlight three major themes concerning current prekindergarten opportunities in relation to the district's readiness expectations.

### 5.1.1 Student readiness

First of all, students from the 2016-2017 Lone Wolf kindergarten class arrived at elementary school with vastly different skill sets. The range of scores on the district's high-priority literacy assessors ranged from 3% to 100%, and the scores on the high-priority math assessors ranged from 37% to 100%. Furthermore, research has shown that students entering kindergarten with basic math and literacy skills tend to acquire knowledge more rapidly and advance to more complex material sooner than their less-prepared classmates; thus, it is likely that the class's current learning gap will be accentuated as the students progress through school (Duncan et al., 2007). These disparities should concern all stakeholders, since the students entering Wolf Pack School District not meeting basic math and literacy expectations will be more likely to require support in the form of costly interventions and/or special education services later in their school careers (Schweinhart, 2003; Temple & Reynolds, 2007; Heckman, Moon, Pinto, Savelyev & Yavitz, 2010). Providing these additional support services strains a school's financial resources, inhibiting program development across the entire school system. This inquiry identified the groups of students enrolled in the Lone Wolf Elementary kindergarten class of 2016-2017 and the prekindergarten path that led them there. This study also informed a deeper understanding of the local prekindergarten programs and the relationships between these programs and the Wolf Pack School District. The service gaps identified among the seven local pre-k centers, in addition to the apparent disadvantages experienced by students who did not attend preschool, provide two

starting points for developing recommendations to improve readiness opportunities in the Wolf Pack School District.

### 5.1.2   Program capacity

Program capacity was another keen topic of concern among those managing the preschools within the Wolf Pack community. The 2016-2017 kindergarten classes in the Wolf Pack School District contained a total 245 students. At the time that they were studied, the combined maximum capacity of the seven pre-k centers in question was 236 students. All of the seven program directors indicated that enrollment levels were either near capacity or had exceeded it, resulting in the formation of waitlists. The director of The Early Learning School indicated that she was particularly concerned by the size of her program's waitlist, which held four or five students set to enroll for kindergarten in 2017-2018 who had never accessed prekindergarten programming.

Some important observations from the interviews suggest that a lack of inter-program communication may have further contributed to the damages caused by these capacity challenges. When asked if she had considered reaching out to one of the other centers to see if they had space for the waitlisted children, The Early Learning Center's director indicated that she had not given much thought to this option, as she had no real history of working with the directors of the other centers. However, these interviews revealed that Ross Prekindergarten had five spaces available during the same period as The Early Learning Center's worrisome waitlist. Had the centers previously established a more communicative relationship, it is possible that the needs of the all the waitlisted students could have been met.

The enrollment of students from other local districts also contributed to the pre-k programs' capacity-related concerns. Ross Prekindergarten and Welcome Child demonstrated the highest rates of cross-district enrollment, each serving children from five different districts. This filling of program spots with non-district students reduces the ability of Wolf Pack families to access local programming, forcing them to join waitlists or to seek opportunities beyond district borders. A third contributor to the capacity crisis was the need for morning pre-k programs among the families of the future Lone Wolf kindergartners. Each of the centers that offered AM and PM programming indicated that they were at or beyond capacity for their AM programs, as many parents just could not make PM programming work due to work, childcare, and transportation schedules.

For the reasons detailed above, the research conducted for this inquiry clearly indicates that program capacity alone presents a significant obstacle to families trying to access prekindergarten education across the Wolf Pack School District, contributing to a host of educational deficits likely to snowball over underserved students' academic careers (Currie & Thomas, 1993; Taylor et al.; 2000; Schweinhart, 2003; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007; Temple & Reynolds, 2007; Heckman, Moon, Pinto, Savelyev & Yavitz, 2010). This fundamental hurdle must be one of the first addressed in order for the Wolf Pack community to improve readiness opportunities for all students.

### 5.1.3   Readiness expectations

The third major concern among stakeholders regarding prekindergarten opportunities in the Wolf Pack community centered on the coordination of services and curriculum. When the readiness assessments of the kindergartners who had accessed local pre-k programming were compared

with those of the students who had not attended preschool, the data indicated that the former group demonstrated higher readiness according to district-wide high-priority math indicators, high-priority literacy indicator, and the DIBELS preparedness evaluation (as detailed in Table 6). These correlations align with research stating that both small- and large-scale prekindergarten programs can positively influence the short- and long-term success of students (Currie & Thomas, 1983; Ramey et al., 1984; Barnett, 1998; Schweinhart, 2003; Gormley et al.; 2005; Currie 2007; Temple & Reynolds, 2007; Wong et al.'s, 2008; Phillips & Meloy, 2012; Cascio & Schanzenbach, 2013).

**Table 6.** Measured Kindergarten Readiness Compared with Student Enrollment in Prekindergarten Programming

| Pre-K Program Access | High-Priority Literacy Indicators: Percent of Students Exceeding 70% Proficiency | High-Priority Math Indicators: Percent of Students Exceeding 70% Proficiency | DIBELS Assessment: Percent of Students Meeting Benchmark Expectations |
|---|---|---|---|
| | | | |
| Students Who Had Attended Pre-K | 45.7% | 89.1% | 71.8% |
| Students Who Had Not Attended Pre-K | 20.0% | 50.0% | 40.0% |

However, the data previously presented in Table 5 indicate that children who had attended certain pre-k programs demonstrated higher average readiness levels upon entering kindergarten than the students who had attended other programs. These differences in readiness did not come as a surprise, given the trend observed in the direct interviews that the pre-k centers developed and implemented their own curricula largely in isolation, with only loose connections and informal interactions with other centers, district personnel, and district kindergarten

readiness standards to guide them. In regards to their knowledge of district readiness expectations, the directors interviewed commonly expressed the following thoughts:

*"I only know what is on the district's readiness assessment because my son took the assessment last year."*

*"I have never personally spoken to anyone at the district about the readiness expectations, but they did drop a packet off here last year."*

*"No, no I don't have a clear understanding of district readiness expectations."*

Data collected through interviews, document analysis, and secondary review of student data painted a picture of a system poorly structured to provide kindergarten readiness opportunities in the Wolf Pack School District. While evidence suggested that the prekindergarten programs in place did support student growth and learning to some extent, the strengths, foci, and structures of the different programs varied and were not always aligned to support district readiness expectations. The overall consensus among the prekindergarten center directors was that while their programs had a positive influence on children, they believed they could benefit from collaboration with each other and with the district.

## 5.2    CONNECTIONS

*How do the Wolf Pack School District and local prekindergarten programs ensure that ALL students in the community have access to prekindergarten opportunities?*

Experts have established that high quality preschool opportunities leads to school readiness (Currie & Thomas, 1993; Taylor et al.; 2000; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007), yet ten of the students enrolled in the 2016-2017 Lone Wolf kindergarten

class never attended prekindergarten programs. Seven of these ten students qualified for the National School Lunch Program, indicating a significant level of socioeconomic need. Socioeconomic status has been positively associated with school readiness and the ability to access prekindergarten programs (Dotterer, 2006; Duncan et al., 2007). Throughout the interviews with the seven prekindergarten center representatives, only the director at CAT Learning Center indicated that the program worked with any government agencies with regards to funding. The director indicated that a handful of the program's students attended through the support of Child Care Information Services, a Child Care Works subsidized program offered through the Pennsylvania Department of Human Services. CAT's director said that she had worked with families from three local counties who had utilized the program. Directors at the other six centers indicated that they had no formal structures in place to meet the needs of families who could not afford their programs.

The finding that ten of the 85 kindergartners in this study (11.8%) had not accessed prekindergarten programs is significant because, as Finn (2009) has indicated, a rigorous pre-k education is essential to giving low SES students the boost they need to narrow learning gaps. Prekindergarten structures within the district did not include any programs supported by Head Start funding, Title One funding or Pennsylvania Pre-K Counts funding. While most of the directors commented on their willingness to work with families in need, each of them indicated that funds for such work were limited and they certainly were unable to advertise funded opportunities. Based on evidence gathered from the interviews and student data detailed above, it is evident that student access to prekindergarten educational opportunities was limited to some degree by lower socioeconomic standing. This finding was consistent with Duncan et al.'s

assertion (2007) that children from low socioeconomic backgrounds do not have access to the structured enrichment experiences necessary to be adequately prepared for kindergarten.

The director at PA Wee School indicated that one of the most difficult parts of her job was turning students away, either because they missed the registration deadline or could not afford the program's tuition. Since the PA Wee School's enrollment fees were far lower than any of the other programs studied, this concern highlights the extent to which financial insecurity impedes access to a pre-k education. Other directors also cited hardship cases in which in-kind gifts or donations were used to support certain families; however, each of directors who mentioned such arrangements also spoke about their limited ability to offer such assistance. With no formal structures in place for providing free or reduced prekindergarten programs across the district, Wolf Pack and the local pre-k centers would be well advised to develop plans for expanding access to its most economically disadvantaged children. A targeted approach to support the neediest students would fall in line with the work of Currie &Thomas, (1993); Finn, (2009); and Cascio & Schanzenbach, (2013) who advise that practitioners, educators, and politicians alike should focus on implementing intensive educational interventions for the most at-risk students (as denoted by low SES) if they hope to improve readiness outcomes.

## 5.3    BUILDING A NETWORK

*How do Wolf Pack's elementary schools work with local prekindergarten centers to align their programming to give all students the opportunity to arrive at kindergarten with the prerequisite skills for success?*

As detailed in sections 5.2 and 5.3, the research conducted in this study revealed that students arrived at Lone Wolf Elementary School for the 2016-2017 school year demonstrating disparate levels of readiness to begin kindergarten. This review also revealed that ten of the students had not attended prekindergarten. Finally, the data indicated that students who had attended certain pre-k programs started kindergarten with more fundamental academic proficiency than those who had attended other programs. These findings spoke to the importance of earlier research recommendations arguing that schools and communities must be prepared to meet the needs of diverse populations of young children and their families (Graue, 1992; Cassidy et al., 2003; Ackerman and Barnett, 2005). Analyses of existing prekindergarten accessibility structures within the Wolf Pack community indicated that the Lone Wolf Community, while providing some of the opportunities pre-k students require for proper development, had failed to fulfill the National Education Goals Panel's challenge from a decade earlier: "By the year 2000, all children will come to school ready to learn" (Panel, 1991, p. ix).

Through review of the prekindergarten documents and coding of the interview transcripts generated during this research, four themes emerged concerning the Wolf Pack community's network of prekindergarten centers and these programs' relationships with the school district. First, center directors indicated that they engaged in little to no interactions with the other prekindergarten centers and/or the Wolf Pack School District. In fact, as the director of The Early Learning School stated, "I mean, the only interaction [my spouse and I, the directors of this program] have with the schools [happens] because our kids are both in kindergarten". Secondly, the directors interviewed expressed that they felt limited in time, space, and resources. The director at PA Wee School said, "I would like to take all the kids that don't get to go anywhere else, but we just need more space".  Thirdly, the directors often stated that they found their work

very difficult in part because it requires them to develop their own lessons. The director at CAT Learning Center gave examples of teacher-generated lessons and assessments that she and another instructor had developed on their own and modified for the various age groups. Finally, the theme that appeared in some form from each of the seven interviewees was the belief that building collaborative partnerships with other local pre-k programs and the Wolf Pack School District could benefit students and support the success of their programs. Table 7 (below) provides a breakdown of each director's thoughts on collaborating with the district and with the other centers in the community.

Table 7. Pre-K Center Director Attitudes About Collaboration

| Pre-K Center | Thoughts on Collaborating with Other Pre-K Centers and/or Wolf Pack School District |
|---|---|
| | |
| Ross Prekindergarten | "There would be value in collaborating with the other programs to identify information and lesson ideas that might guide or inspire our own curriculum." |
| CAT Learning Center | "Bringing adults together to plan and share lessons, lesson plans, and activities might help us figure out why some of our students are not ready to learn when they start kindergarten." |
| Valley | "Things that some programs do well, others may need support with, and vice versa. So to me it's not about making money, it's about how many kids can we help." |
| Welcome Child | "I would love to work more with the school districts. I would love to go watch them teach or have them come observe me teach to offer advice about what the kids need so I can help them 100%." |
| The Early Learning School | We talked with the district and were told that, "We handed you the standards last year, and that is what we base our readiness assessment upon". |
| Early Start | "I would not mind [collaborating]; in fact, I currently feel like we have blinders on and it is like a big secret, like, What's on the other side of the curtain?" |

This investigation into existing local prekindergarten programs and their interrelationships suggests that the pre-k center directors interviewed take pride in their programs and want to serve their community's students and families to the best of their abilities. The

analysis also revealed these administrators often feel overwhelmed, isolated, and disconnected from the resources needed to meet the needs of all students. The directors indicated that they were open to the idea of establishing/reestablishing collaborative relationships with other local centers and with representatives of the Wolf Pack School District. Ackerman and Barnett (2005) indicated that readiness depends on the demands of kindergarten programs, the supports provided by the program, and the individual child's preparedness personal proficiency in readiness-relevant knowledge and skills. The best way to mitigate readiness deficiencies is to provide both children and schools with the necessary tools to nurture and enhance preparedness (Ackerman & Barnett, 2005). Establishing structured and purposeful communication between prekindergarten directors, kindergarten teachers, and other early education stakeholders could provide opportunities to identify the unique needs of the students in the Wolf Pack Community and to share the valuable resources that could empower schools to address these requirements.

# 6.0    IMPLICATIONS AND RECOMMENDATIONS

This section summarizes the implications of the present inquiry into kindergarten readiness and translates these results into recommendations for practices, policies, and future avenues of study within the Wolf Pack community and beyond. This study was narrow in scope, as it focused on prekindergarten structures within the Wolf Pack Community and their influences upon a single cohort of kindergarten students from Lone Wolf Elementary. Prior research had indicated that across the country, school districts and/or communities varied in the structures and functions put in place to promote kindergarten readiness. The case study at hand was developed to better understand the unique prekindergarten dynamics within the Wolf Pack Community and should be taken as but a piece of a much broader and comprehensive body of research regarding kindergarten readiness.

## 6.1    PRACTICE

**The Wolf Pack School District should take the lead on developing a prekindergarten advisory board to bring together local pre-k center directors, current Lone Wolf kindergarten teachers, parents, and other stakeholders to share expectations, best practices, and program support opportunities with one another. This advisory committee's**

**initial work should focus on addressing the three primary areas of concern that emerged during the present investigation.**

First, how can the community address pre-k access issues related to program capacity? This inquiry has revealed a shortage available spots in preschool classes within the community, often resulting in students being placed on waitlists. Second, how can the community assure that all students have access to kindergarten readiness programs, regardless of socioeconomic status and/or the ability of the family to afford programming? Through the analyses detailed above, seven students were identified who had both qualified for the National School Lunch Program in kindergarten and who had also not attended a prekindergarten program. Third, how can the Wolf Pack School District establish a program that supports collaboration between and among the local prekindergarten centers and the district, promoting the exchange of readiness expectations, information, and best practices? Interview data collected during the inquiry indicated that while local pre-k programs demonstrated some success in preparing students for kindergarten, the program directors felt that their programs could benefit from collaboration with other pre-k instructors and with representatives of the Wolf Pack district. Improved communication around enrichment opportunities, curricula for facilitating readiness, and other research-backed early education strategies would assure better program alignment with the readiness expectations of the district, providing students with more comprehensive and consistent programming in their prekindergarten years.

The best way to address readiness issues is to determine what both children and schools need to nurture and enhance preparedness (Ackerman & Barnett, 2005). Students continue to arrive at Lone Wolf Elementary without the basic readiness skills that the district has established are necessary for successful transition into kindergarten. Students arriving without these

fundamentals tend to fall behind their peers and to require additional services as they progress throughout the school system (Schweinhart, 2003; Temple & Reynolds, 2007; Duncan et al.; 2007; Heckman, Moon, Pinto, Savelyev & Yavitz, 2010). Given these findings, the Wolf Pack School District should consider the relationship that the lack of readiness skills is having on individual students and on the system as a whole, as research has shown that the cost of addressing learning disabilities later in a child's school career is far more expensive than the cost of funding kindergarten readiness programs or prekindergarten interventions (Ramey, Yeates & Short, 1984).

## 6.2    POLICY

**Federal, State and Local agencies should consider restructuring the funding distribution strategies in ways that could provide all at-risk families with expanded opportunities to access the early education support programs available within their communities.**

This study's preliminary literature review discussed three state and federal government-funded programs created to help provide kindergarten readiness opportunities to at-risk children and their families: Head Start, Title One Preschool Funding, and Pennsylvania Pre-K Counts. Head Start alone touted a budget of over eight billion dollars (U.S. Department of Health and Human Services, 2012), yet throughout this inquiry, not one local program reported having access to or support from Head Start funding. Likewise, not one of the program directors cited the use of Pennsylvania Pre-K Counts or Title One funding. Although it was established that prekindergarten centers located in areas near the district studied had received funding from one

or more of the three programs, it does not seem that these funds had been accessed by preparatory programs or students in the Wolf Pack Community.

The inquiry found that 27 out of 85 students (31.8%) enrolled in the Lone Wolf kindergarten class of 2016-2017 met the requirements for enrollment in the National School Lunch Program and had accessed these benefits. This fraction suggests that approximately one third of the students attending Lone Wolf Elementary came from families with limited financial resources. It is disheartening that Head Start and Title One, two federal programs with multi-billion-dollar budgets, as well as the state-funded Pennsylvania Pre-K Counts, have seemingly failed to meet the needs of the underprivileged students in the Wolf Pack community.

Furthermore, Lone Wolf represents one of over 1,900 elementary schools in the Commonwealth of Pennsylvania. Presumably, one may extrapolate that in other districts with demographics similar to Wolf Pack's, at-risk students and parents also lack access to programs funded through Head Start, Pre-K Counts and Title One. Wong, Cook, Barnett, and Jung's 2008 review of five state-run pre-k support initiatives determined that such programs positively influence cognitive readiness in young students. This evidence, along with the findings from The Carolina Abecedarian Project, the High/Scope Perry Preschool Program and the Chicago Child-Parent Centers, which indicated that prekindergarten programs provide significant returns for students, parents, and their community as whole (Temple & Reynolds, 2007), and offer rationale for developing a state-wide system to support prekindergarten opportunities for all. At a minimum, the state of Pennsylvania should investigate the factors that prevent funds and support from reaching at-risk families residing in pockets within more affluent communities.

## 6.3     FUTURE STUDY

**It is my belief that further research needs to be conducted regarding the funding structures of current programs such as Head Start, Pennsylvania Pre-K Counts, and Title One in order to make the funding from these and other similar programs as available as possible to all students and families in need of such support.**

As evidenced by the findings of this inquiry, access to supportive funding and programs is limited in districts like Wolf Pack that do not appear to meet the obvious criteria for appearing to be a "community in need". This phenomenon leaves at-risk populations of students within relatively affluent communities unable to access the supports that might be more readily available to them within less affluent areas.

This investigation of Lone Wolf Elementary contributed to and supported the body of research indicating that students who experience prekindergarten opportunities arrive at kindergarten with better-developed readiness skills than do their peers. At Lone Wolf, three indicators were reviewed to assess readiness levels of kindergarten students in the 2016-2017 cohort. As shown in Table 6, the group of students who accessed local prekindergarten programming outperformed the group of students who did not access pre-k resources on high-priority literacy and math indicators, as well as on the DIBELS assessment. These results are congruent with earlier research findings that high-quality preschool opportunities lead to school readiness (Currie & Thomas, 1993; Taylor et al.; 2000; Gormley, Gayer, Philips & Dawson, 2005; Currie, 2007).

The inquiry also revealed that 70 percent of the students who lacked access to prekindergarten programs could be considered at-risk based on socioeconomic status. This observation aligns with previous research positively correlating school or kindergarten readiness

to the socioeconomic status of a student's family (Halle et al.; 2009; Dotterer, et al., 2012). These findings are disturbing, since the seven prekindergarten center directors interviewed indicated that they had little to no ability to provide funding support to students or families in need.

Prekindergarten programming varies widely across the country and beyond, from the availability of instructional styles and structures to the supplementary funding sources, tuition costs, and curricula offered. I believe that it is important for the practitioners in each of the local settings to become more involved in understanding and assessing the available resources and working within their context to make pre-k enrichment accessible to all students; additionally, these stakeholders should work to strengthen program offerings through collaboration between local pre-k centers and the school system they feed. Ultimately, a high-quality prekindergarten education can have a positive influence on individual students, the school systems they attend, and the communities in which they live, learn, and play.

## 7.0     REFLECTION

This final section will endeavor to help the reader understand how the process of completing this dissertation has impacted the author. The reflections that follow will provide a unique perspective on the personal and professional growth derived from the completion of the Doctorate of Education (EdD) program, the framing of this inquiry, and the process of executing it.

## 7.1     PROGRAM

The opportunity to integrate my academic research with my professional work allowed me to engage in a meaningful, relevant inquiry into a challenge specific to my context and setting. The coursework and guidance provided throughout the program allowed me, as a learning practitioner, to further develop my research and writing skills while working closely with colleagues to analyze kindergarten readiness opportunities and barriers within the Wolf Pack community.

While the program certainly provided an invaluable knowledge base specific to my work as an administrator, perhaps the most important asset imparted by my studies at Pitt are the relationships that I have built with other students and staff members. The supportive, inclusive nature of the program, as well as the study group model utilized by Dr. Tananis, allowed me to

engage not only with my own inquiry, but also with other students passionately exploring other research questions of great significance to my work as a public school administrator. I am confident that my collaborative relationships with my colleagues will continue to support my work for years to come.

## 7.2    INQUIRY

My examination of kindergarten readiness resources was shaped by and conducted from the perspective of a practitioner researcher. Identifying a problem within my local context with the goal of developing recommendations to effect change within the system and beyond made the research meaningful, relevant, and practical. By applying the inquiry techniques learned through the coursework at the University of Pittsburgh to a problem of direct concern within my community helped me to bridge the gap between theory and practice, a connection that is so critical in adult learning. Early on in the process of framing and commencing by inquiry, I realized that in order to form any meaningful recommendations for strengthening readiness systems, I would need to gain an in-depth knowledge of the existing structures, stakeholders, and informational resources within the Wolf Pack Community. This led me to recognize the potential power of translating an inquiry into action, of the importance of collecting, analyzing, and leveraging objective, well-supported data to drive change within a system. These lessons are tools that I will carry with me beyond my dissertation and that I will utilize as I continue to evaluate programs and lead systemic change efforts across the district and community.

## 7.3     PROCESS

The process of completing my dissertation and doctoral degree has provided many lessons along the way. I could discuss the struggles of an evolving program; the difficulty of balancing the demands of a career, a terminal degree program, and a family; the stress of meeting deadlines; or the thrill of reviewing final edits and preparing for the final defense; but really, the process taught me so much more.  It exposed me to new ways of thinking and challenged my norms. It forced me to be critical of my work and the work of others. It connected me with new people who provided me with opportunities, friendships, and professional relationships that will shape my work for years to come.

The process has taught me that while formal education is a powerful vehicle, it is learning, in all of its many forms, that truly matters. I have learned more from my advisor, professors, and fellow students during the past four years than any three letters can ever represent, and while I will certainly celebrate the completion of this formal program, it is critical that my pursuit of knowledge never comes to a close. Finally, the process taught me that while work and school are important, the relationships we form, develop, and sustain with the people we encounter on our life's journey are much more important than any work or titles we leave behind.

**PREKINDERGARTEN CENTER PROGRAM CENTER DIRECTOR: INTERVIEW**

**PROTOCOL**

**Introduction:**
Thank you for taking the time to talk about your prekindergarten program.

I am excited to learn more about your program offerings. By learning more about your offerings and the offerings of other programs in the area I hope to have a more comprehensive picture of the current prekindergarten structures in the community and guide future work in an attempt to connect all of the district's young learners to prekindergarten opportunities.

Today's interview should last approximately 40 minutes. For coding purposes are you comfortable with me recording our interview today?

Do you have any questions before we begin?

**Topic 1:  Current Program Structures**

Can you please tell me about your prekindergarten program here at _____?
PROBE:      What age groups do you currently serve?
PROBE:      What does the daily time structure and routine look like for each group?
PROBE:      Tell me about your staff?

Can you tell me a little about the history of your program?
PROBE:      How did the center come about?
PROBE:      How has the center grown and changed over the years?
PROBE:      What changes or growth do you envision in the future?

Can you tell me about the students that attend your program?

|  | PROBE: | Where do the students reside? |
|--|--------|-------------------------------|
|  | PROBE: | At what age do they typically enroll in your program? |

How do you measure a student's level of preparedness for kindergarten?
       PROBE:       What types of assessments do you use?
       PROBE:       Who assesses a student's readiness for kindergarten?
       PROBE:       What readiness domains do you look at when assessing students?

## Topic 2:  Current Cost Structures

Please tell me about your current cost structures for students and families?
       PROBE:       Do you offer any specials or discounts, and if so, what are they based on?

How is your program funded?
       PROBE:       Do you receive any federal or state money, and if so, could you provide details about that funding?
       PROBE:       Do you currently receive any local funding, and if so, could you outline the sources?

How do you handle families that cannot afford your program?
       PROBE:       Do you offer any type of scholarships or support, and if so, how are they funded?
       PROBE:       Do you offer a sliding scale based on income, and if so, could you explain how the scale works?

## Topic 3:  Strengths, Growth Areas and Partnerships

Please tell me about your programs greatest strengths?
       PROBE:       What are you most proud of with regards to your work here?
       PROBE:       When you talk to people about _____ what is the first thing
                    you share with them?

As you plan for the future and consider areas where your program could grow, what comes to mind?
       PROBE:       What supports would you need to make those things happen?

Do you currently do any work with the school district or any of the other prekindergarten programs in the area, and if so, what is the focus of that work?
       PROBE:       Do you feel there could be value in developing (or further developing) collaborative relationships with the district and/or the other programs, and if so, what should the nature and focus of those relationships include?

## Closing:

Do you have any final thoughts you would like to share?

I want to thank you for your time and allowing me to look closely at your program. I will be in touch to let you know how the research process goes. If you have any questions or concerns about the process, or this interview, please contact me. I look forward to working with you in the future as we continue to strive to provide all students an opportunity to access prekindergarten programming.

December 4, 2016

Dr. Jerri Lippert
Superintendent
Wolf Pack School District
110 Lone Wolf Dr.
Wolf Den, PA 15126

Dear Dr. Lippert,

I would like to request permission to conduct a study at the Wolf Pack (Pseudonym) School District titled, *An Exploration of Kindergarten Readiness Opportunities.* This study is being conducted to fulfill the requirements for my dissertation research with the University of Pittsburgh.

The purpose of this study is to (1) review the current prekindergarten opportunities in the Wolf Pack School District, (2) explore ways in which the Wolf Pack School District and local prekindergarten programs can work together to ensure all student have access to prekindergarten programming (3) and examine ways to in which the district and prekindergarten centers can work collaboratively to share resources and support our youngest learners.

The study will review data the Wolf Pack School District has collected from kindergarten enrollment packets and from kindergarten screeners. The study will also collect data through interviews and document review at local prekindergarten centers to include the Wolf Pack Prekindergarten Program run through the high school family and consumer science department. Significant steps will be taken to protect all student data, participation on the part of program centers will be voluntary and the study will be sanctioned by the University of Pittsburgh Institutional Review Board before being conducted.

I have attached a copy of my proposed study for your review. After the study, I would be happy to share the results with you or any members of the district. If you have any questions regarding the study, please let me know. If you agree to allow me to employ the study, please sign in the space provided below.

Thank you for your support,

Christopher V. Shattuck

I grant my permission for Christopher V. Shattuck to conduct the study, *An Exploration of Kindergarten Readiness Opportunities,* in the Wolf Pack School District.

_____          _____
Dr. Jerri Lippert                                                      Date

# APPENDIX C

**University of Pittsburgh**
*Institutional Review Board*

3500 Fifth Avenue
Pittsburgh, PA 15213
(412)      383-1480
(412) 383-1508 (fax)
http://www.irb.pitt.edu

<u>**Memorandum**</u>

To:      Christopher Shattuck

From:   IRB Office

Date:    12/20/2016

IRB#:   <u>PRO16120394</u>

Subject: An Exploration of Kindergarten Readiness

The above-referenced project has been reviewed by the Institutional Review Board.  Based on the information provided, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section
45 CFR 46.101(b)(2)
45 CFR 46.101(b)(4)

Please note the following information:
- Investigators should consult with the IRB whenever questions arise about whether planned changes to an exempt study might alter the exempt status. Use the "**Send Comments to IRB Staff**" link displayed on study workspace to request a review to ensure it continues to meet the exempt category.
- It is important to close your study when finished by using the "**Study Completed**" link displayed on the study workspace.
- Exempt studies will be archived after 3 years unless you choose to extend the study. If your study is archived, you can continue conducting research activities as the IRB has made the determination that your project met one of the required exempt categories.  The

only caveat is that no changes can be made to the application. If a change is needed, you will need to submit a NEW Exempt application.

**Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.**

**KINDERGARTEN SCREENING TOOL**

*Administration Guide*

**Screening Date:**

**Section 1: Phonemic Awareness**

Directions: (**Bold= Say**, *Italics = Do*)

**(A) First Sound Isolation**

Directions: (**Bold= Say**, *Italics = Do*)
*Say***: "I am going to ask you to tell me the first sound you hear in a word. For example, if I say** *'cap'* **you would say /k/ because it is the first sound in** *'cap'.***"**
Say: **"Let's practice. Say the word 'pig.' What is the first sound you hear? Yes, the first sound is /p/. Now it is your turn. What is the first sound you hear in** *'soap'?"* **(/s/)**

Say: **"What is the first sound you hear in _____?"** *(This prompt will be used once unless student needs reminded)*

| Teacher Dictated | Correct Response (Number of Words) | Student Response | Score |
|---|---|---|---|
| Ball | **/b/** | | **/1** |
| Top | **/t/** | | **/1** |
| Dark | **/d/** | | **/1** |
| Pot | **/p/** | | **/1** |
| Man | **/m/** | | **/1** |
| | | **Total** | **/5** |

### Section 2: Alphabet Letter & Sound Recognition

**(A) Uppercase Letter Recognition**
**(B) Sound Recognition**
Directions: (**Bold= Say**, *Italics = Do*)
*Say*: **"I'm going to point to each upper case letter. Please tell me the letter names and the sound the letter makes. We are going to start here and go across the row."**
*Mark incorrect responses with a (/ ) and note the student's response in the box. (Shaded boxes for letter sound)*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | Total /26 | |
| | | | | | | | | | | | | Total /26 | |

**(C) Lowercase Letter Recognition**
Directions: (**Bold= Say**, *Italics = Do*)
*Say*: **"I'm going to point to each lower case letter. Please tell me the letter names. We are going to start here and go across the row."**
*Mark incorrect responses with a (/ ) and note the students response in the box.*

| | | | | | | |
|---|---|---|---|---|---|---|
| a | e | I | M | q | u | y |
| b | f | J | N | r | v | z |
| c | g | K | O | s | w | Total |
| d | h | L | P | t | x | /26 |

## Section 3: Word Recognition

**(A) High Frequency Words**
**Say: "Try to read these words for me. Start here (point to 'my') and read across the row."**

*Mark incorrect responses with a (/ ) and note the students response in the box.*

| My | the | like | |
|----|-----|------|--------------|
| to | see | at | **Total** |
| Go | we | on | **/12** |
| You | have | do | |

## Section 4: Mathematics

Directions: (**Bold= Say**, *Italics = Do*)

**(A) Count to 20**
**Say: "I would like you to count for me.  Start with 1 and I'll tell you when to stop."**
*Place a (/ ) on any numbers missed by the student. Stop the child when he or she gets to 20.*

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|----|----|----|----|----|----|----|----|----|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | | | | | | | | | **Total** **/20** |

**(B) Numerical Recognition (0-10)**
**Say: "Look at the numbers on this page. Start here** *(point to the first number)* **and tell me as many numbers as you can.**
*Mark incorrect responses with a (/ ) and note the students response in the box.*

| 3 | 9 | 0 | 1 | 8 | 6 |
|---|---|---|---|---|---|
| 7 | 5 | 4 | 2 | 10 | **Total** **/11** |

**(C) Shapes**

Say: **"I'm going to show you some shapes. Can you tell me the name of each shape?"**
*Mark incorrect responses with a (/ ) and note the students response in the box.*

| Circle | Square | Triangle | Rectangle | Total<br>/4 |
|--------|--------|----------|-----------|-------------|
|        |        |          |           |             |

**(D) Colors**

Say: **"Now let's look at some colors. Please tell me the name of each color."**
*Mark incorrect responses with a (/ ) and note the students response in the box.*

| Blue | Yellow | Red | Green |
|------|--------|-----|-------|
| Purple | Orange | Brown | Black |
| | | | Total<br>/8 |

**Section 5: Motor Skills & Following Directions**

Directions: (**Bold= Say**, *Italics = Do*)

**(A) Handwriting**

*Hand them the cutting/handwriting page and point to the handwriting box.*
*Ask the student to do the following:* **Say: "Please write your first name in the box."**

*Following the screening, use the following rubric to assess the child's writing sample.*

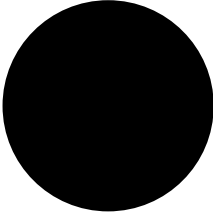| *S creening Criteria* | *Holds pencil correctly.* | *Uses correct letters.* | *Write s left to right.* | *Uses proper capitalization.* | **Total** |
|------------------------|---------------------------|--------------------------|---------------------------|-------------------------------|-----------|
| ✓<br>/ X | | | | | /4 |

**(B) Multi-Step Directions**

*Ask the student to do the following skills.* **Say: "I will only give you the directions once, so please listen carefully.  The tasks should be done in the same order that I say them."**

| Task | Does the Task (✓ / X) | Does it in Order  (✓ / X) |
|---|---|---|
| First, jump and then touch your nose | | |
| First, clap your hands and then touch your head | | |
| First, touch your knees and then turn around | | |
| Total | /6 | |

# Kindergarten Screening
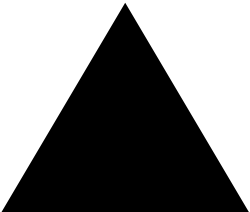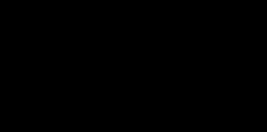
| | | | | | | |
|---|---|---|---|---|---|---|
| **A** | **E** | **I** | **M** | **Q** | **U** | **Y** |
| **B** | **F** | **J** | **N** | **R** | **V** | **Z** |
| **C** | **G** | **K** | **O** | **S** | **W** | |

| D | H | L | P | T | X |   |
|---|---|---|---|---|---|---|

| a | e | i | m | q | u | y |
|---|---|---|---|---|---|---|
| b | f | j | n | r | v | z |

| | | | | | | |
|---|---|---|---|---|---|---|
| c | g | k | o | s | w | |
| d | h | l | p | t | x | |

| | | |
|---|---|---|
| my | the | Like |
| to | see | At |
| go | we | On |
| you | have | Do |

| 3 | 9 | 0 | 1 | 8 | 6 |
|---|---|---|---|---|---|
| 7 | 5 | 4 | 2 | 10 | |

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