

Kindergarten Readiness: What Makes the Difference?

A Special Project

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FACULTY APPROVAL

Kindergarten Readiness: What Makes the Difference?

Approved for the Faculty

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ABSTRACT

What does a child need to be successful in kindergarten? What influences kindergarten readiness? This project researches and forms conclusions as to the impact the following four key aspects have in preparing children for kindergarten: (1) Education level of students mothers, (2) the socio-economic status of the students' families (3) preschool attendance and (4) kindergarten entrance age.

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CHAPTER 1

Introduction

Background for the Project

Kindergarten is the first year students are in the public schooling system.

Some students excel and succeed, while others do not. This project asks and answers the questions “Do students who start behind eventually catch up with their school-ready peers? Why do some students succeed and why are some students unsuccessful? What experiences prior to school put students at an advantage or disadvantage?” This project considers four kindergarten readiness questions: (1) Students whose mothers had higher education were more ready for Kindergarten. (2) The socio economic status of the students' families also played an important role in kindergarten readiness, as well as (3) kindergarten entrance age and (4) preschool attendance.

Problem Statement

In this action research project, the teacher deliberated about what characteristics does a kindergartener have who is well prepared for success in their current and subsequent educational years? If a well prepared Kindergarten student has the readiness to learn, and if this readiness to learn assists the student

well into their K-12 studies, what factors are most influential towards developing that readiness?

Purpose of the Project

The main objective is to seek a better understanding of the key elements required for a child to be academically successful and well prepared for their kindergarten and subsequent educational career.

Delimitations

This project was completed in Eastern Washington in the Lowline School District, during the academic year of 2012-2013. Participants were students from five teachers' classrooms and all were kindergarteners; some of the students had a pre-school education, and some of which did not. Some of the known and controlled boundaries of the project were as follows. All students were considered, regardless of ethnicity, race, or language barriers. The author gathered data on: (1) Education level of students' mothers, (2) the socio-economic status of the students' families, (3) preschool attendance, and (4) kindergarten entrance age. Two students were chosen better understand the specifics of their educational progress and, to gather more details that could not be accomplished entirely anonymously. This portion of the project was designed to better understand the

possible benefits of attending preschool—while this study is enlightening, and potentially informing of the teacher’s question, due to the small participant selection, any outcomes or findings cannot generalize to larger populations.

Assumptions

The author assumed that the school-collected information regarding socioeconomic status and mother’s highest education level are true and accurate as reported by the surveys.

Research Question

What are the factors that appear to positively influence kindergarten readiness?

Significance of the Project

The teacher explores inputs for Kindergarten readiness to consider what educational implications may exist. It is possible that this understand may inform policy decisions in school districts. For example, if it appears that attending preschool prior to kindergarten does not significantly improve kindergarten readiness, the school district may have a basis to justify removing previously established preschool classes from the district's public education system.

On the other hand, if the data suggests that there may be a benefit enjoyed by students for a preschool experience, then it may inform discussions around reinstating preschool for the school district. Again, the results of this action research project are insufficient to generalize, but it may suggest that future review and study be conducted to ascertain the potential educational benefit of preschool.

Procedure

The procedural domains are important to quality outcomes and better understandings. The teacher-researcher followed the following steps:

1. Obtained letters granting permission to gather student data.
2. Gathered preschool attendance information on current kindergarteners.
3. Collecting data of student's mother's education level.
4. Acquired the students' family socio-economic status.
5. Determined the entrance age upon start of kindergarten year.
6. Evaluated the research data and formulated correlations between data gathered and the potential correlations to kindergarten readiness relative to the four points explored in this project.
7. Present conclusions that may provide a recommended path forward for a school district.

Definition of Terms

Poverty is defined by the United States Census Bureau, as a varying scale dependent on the ratio of family income to the size of the family (income encompassing earnings, unemployment, noncash benefits, etc.).

Acronyms

ADHD: Attention Deficit Hyperactive Disorder

DIAL-R: Developmental Indicators of Assessment of Learning – Revised

OSPI: Office of Superintendent of Public Instruction.

CHAPTER 2

Review of Selected Literature

Introduction

From the research and the significant literature review the author conducted, four key areas were focused on that appear to contribute to the success of Kindergarten readiness. The areas of study were (1) Education level of students' mothers, (2) the socio-economic status of the students' families (3) preschool attendance and (4) kindergarten entrance age.

Overview

Students who enter kindergarten after being successfully prepared in preschool will be more academically successful throughout their educational career when compared to students who did not attend preschool. Within Isaacs (2012) paper, Duncan et al., (2007, 2010) suggests that "School readiness has effects beyond the first few months of kindergarten; children with higher levels of school readiness at age five are generally more successful in grade school, are less likely to drop out of high school, and earn more as adults, even after adjusting for differences in family background" (p. 2). This initial success has been shown not to wane during the years that follow, but rather stays consistently at (approximately) the same level. In summary, if the student entered kindergarten

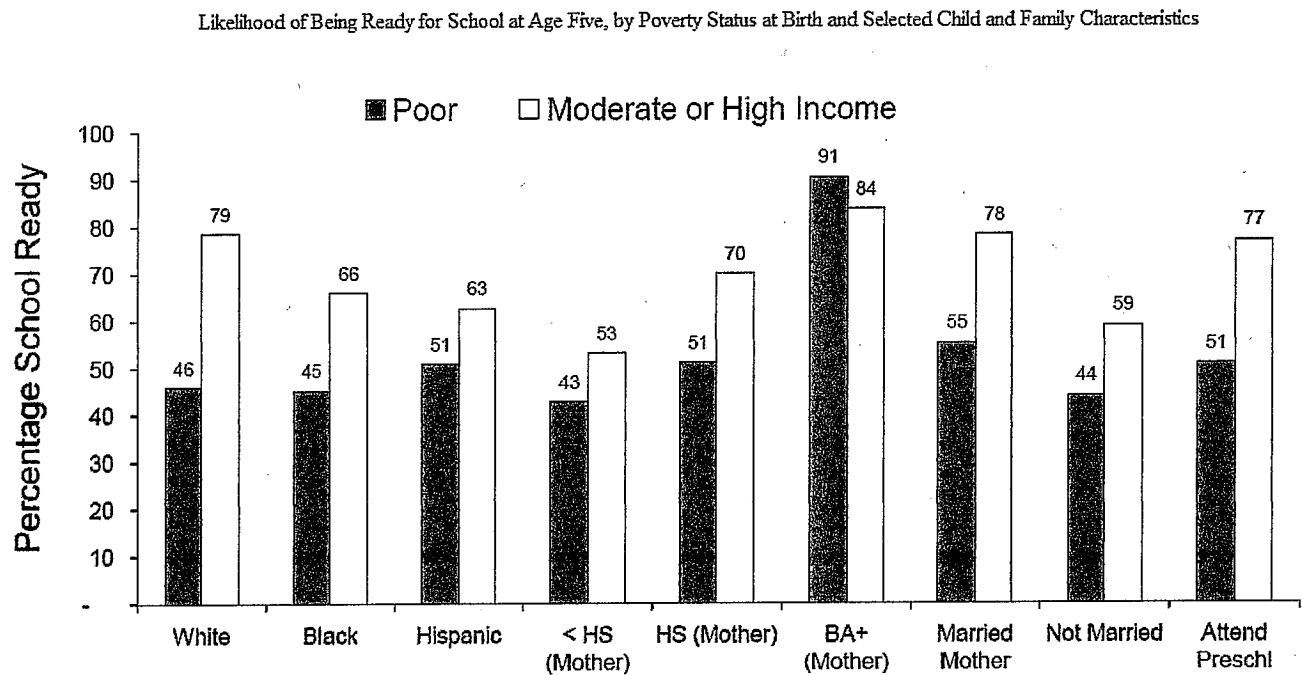
prepared and was successful in preschool, they will remain successful all through their subsequent school year (Duncan et al., 2007; Duncan et al., 2010; Early Learning Technical Workgroup, Nov, 2011; OSPI: Washington Preschool Program, 2011; Winship, Sawhill and Gold, 2011).

Child's mother's level of education effect of on kindergarten readiness

According to Magnuson and McGroder (2002), there is a strong correlation between a student's academic achievements and the mother's education level. Numerous studies have been conducted and the findings of each of the studies showed a strong correlation between higher levels of education and higher academic performance in Kindergarten (Bee et al., 1982; Haveman & Wolfe, 1995; Isaacs, 2012, Magnuson, & McGroder, 2002). Magnuson and McGroder (2012) state, "positive correlations between mothers' educational attainment and children's well-being, and particularly school outcomes and cognitive development, are among the most replicated results from developmental studies" (p.ii). Magnuson, and McGroder recorded "... increases in maternal education are significantly and positively associated with children's academic school readiness, and negatively associated with children's academic problems" (2002, p. ii). This impact of the mother's education level was also discussed by

Isaacs and in Figure 1 it illustrates the impact of the mothers' education level to their student's readiness for school:

Figure 1 – School Ready



Source and Notes: Brookings tabulations of data from the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B). Poor at birth is defined as household income less than 100 percent of poverty and moderate or high income is defined as household income at or above 185 percent of poverty. School readiness of near-poor children (incomes 100-185 percent) is not shown but generally lies between the two other groups (Isaacs 2012, p. 5).

Effect of Socio-economic Status and Learning Disabilities

Currie (2009) speaks to the effects a family's socio-economic status can have on their child's education when a learning disorder or problem is present.

Currie states "According to the hyperactivity subscale of the Strengths and Difficulties Questionnaire of the National Health Interview Survey, 4.19 percent of boys and 1.77 percent of girls have 'clinically significant' ADHD [Attention Deficit Hyperactive Disorder] symptoms... Prevalence is also higher (6.52 percent) in families with incomes less than \$20,000 than in families with higher incomes (3.85 percent)" (Currie 2005, p. 119). As Currie presents in this quote, the occurrence of learning disorders such as ADHD are more prevalent in families below middle class status. Some of the symptoms that are characteristic of a student struggling in school due to ADHD are shown in Table 1 (DuPaul 1991, p. 18):

Table 1. The ADHD Rating Scale

Child's Name _____ Age _____ Grade _____				
Completed By _____				
Circle the Number in the <i>One</i> Column That Best Describes the Child				
	Not at All	Just a Little	Pretty Much	Very Much
1. Often fidgets or squirms in seat.	0	1	2	3
2. Has difficulty remaining seated.	0	1	2	3
3. Is easily distracted.	0	1	2	3
4. Has difficulty awaiting turn in groups.	0	1	2	3
5. Often blurts out answers to questions.	0	1	2	3
6. Has difficulty following instructions.	0	1	2	3
7. Has difficulty sustaining attention to tasks.	0	1	2	3
8. Often shifts from one uncompleted activity to another.	0	1	2	3
9. Has difficulty playing quietly.	0	1	2	3
10. Often talks excessively.	0	1	2	3
11. Often interrupts or intrudes on others.	0	1	2	3
12. Often does not seem to listen.	0	1	2	3
13. Often loses things necessary for tasks.	0	1	2	3
14. Often engaged in physically dangerous activities without considering consequences.	0	1	2	3

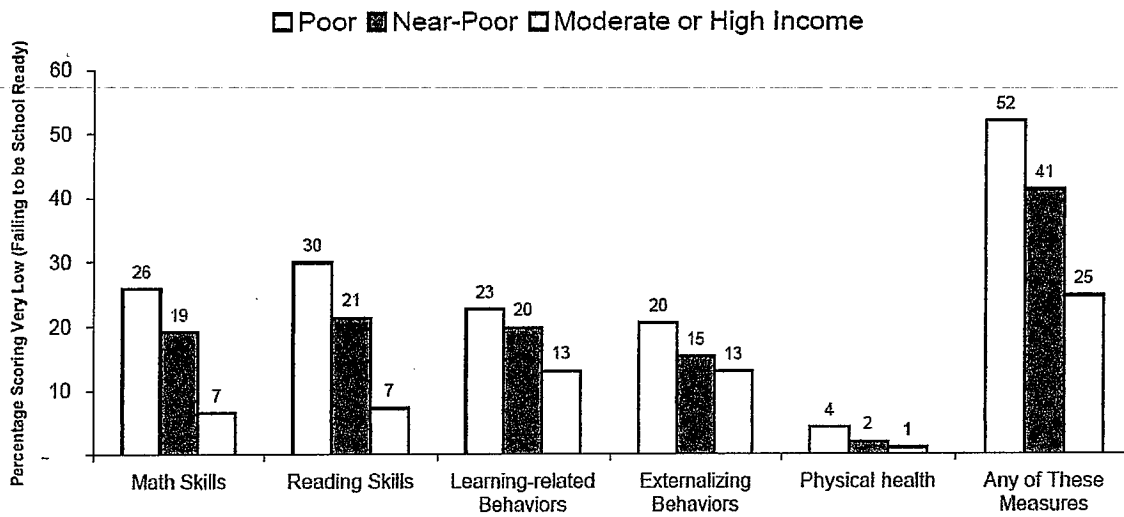
Based on DuPaul's (1991) observations, when a student is already apt to struggle in school due to ADHD, the amount that a student's education is at risk is increased by poverty. Speculation may lead one to believe that perhaps the low socio-economic status of a student may contribute to the ADHD symptoms by not only nature, but nurture as well. For example, if a parent is required to work two jobs in order to make a livable income, these parents may not have the time or money to provide their children with educational activities such as visits to the zoo or the beach, where very valuable vocabulary and other life experienced based knowledge is gained. This can limit the entering Kindergarten student's academic vocabulary (Marzano, 2004, p.10). Many such scenarios leave parents unable to pay for evening babysitters, and because of this the television is often used as a tool to do much of the babysitting. When preschoolers are set in front of the television for extended periods of time, their attention span is lowered and therefore it is often hard for these children to maintain the required cognitive focus when a teacher is reading a book to a class (Anderson & Collins, 1988). This may be from lack of 'scene changes', bright colors, and other excitement they are used to experiencing while watching television. As a study conducted by Christakis, DiGiuseppe, McCarty, and Zimmerman (2004) asserts, "It is also possible that there are characteristics associated with parents who allow their children to watch excessive amounts of television that accounts for the

relationship between television viewing and attentional problems. For example, parents who were distracted, neglectful, or otherwise preoccupied might have allowed their children to watch excessive amounts of television in addition to having created a household environment that promoted the development of attentional problems” (Christakis, DiGiuseppe, McCarty, & Zimmerman, 2004, p. 708).

Currie (2009) also discusses that families of lower socio-economic statuses may lack insurance or funds to purchase medications for ADHD, which makes it very difficult to deal with the effects of ADHD on school performance. This can become a vicious cycle for a family that is living in poverty; because they may not be financial capable to access medications needed to help their child succeed in school, the child does not obtain the education required to break out of the cycle of generational poverty.

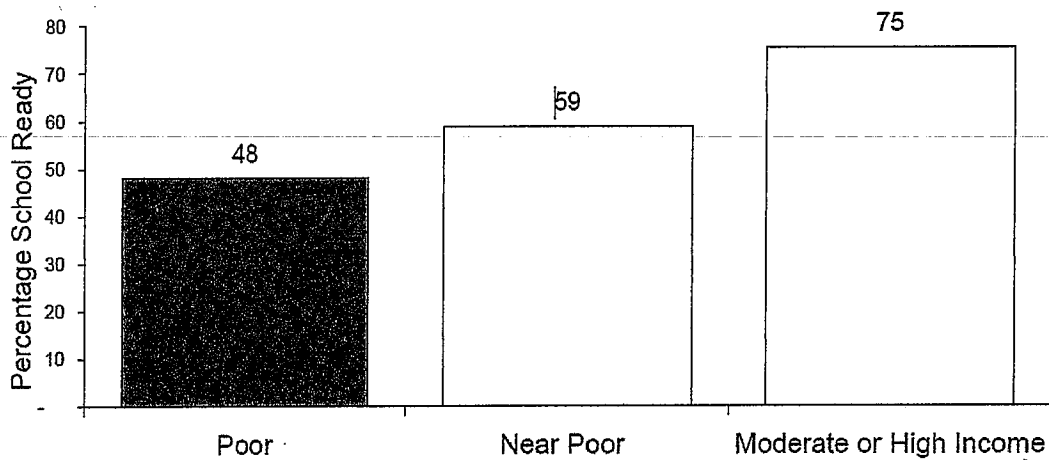
In Figures 2 and 3, Isaacs (2012) presents correlates across a continuum of educational areas.

Figure 2: Likelihood of Failing to be School Ready (Scoring Very Low) on Measures of School Readiness, by Poverty Status



Source and Notes: Brookings tabulations of data from the Early Childhood Longitudinal Study – Birth Cohort (ECLS-B). Very low is defined as more than one standard deviation below average on the academic and behavioral measures and in poor/fair health on the physical health measure (Isaacs 2012, p. 4).

Figure 3: Likelihood of Being Ready for School at Age Five, by Income



Source and Notes: Brookings tabulations of data from the Early Childhood Longitudinal Study – Birth Cohort (ECLS-B). Near poor is defined as household income between 100 and 185 percent of poverty and moderate or high income is defined as household income above 185 percent of poverty (Isaacs 2012, p. 3).

Effect of Preschool on Kindergarten Readiness

Within the Washington Preschool Program: Increasing Access and Outcomes for Children publication from 2011 were the Final Recommendations of the Early Learning Technical Workgroup. From these recommendations, the workgroup suggests that there are three main points that are discussed:

Improve Educational Gains for Children:

- (1) Two years of preschool are more effective in achieving educational outcomes.

Children with two years of preschool make far greater gains than those with one year of preschool. A rigorous evaluation of New Jersey's Preschool program found that the Pre-K group closed more than 50 percent of the achievement gap, versus 18 percent for the —no Pre-K group at the end of the kindergarten year. Two years of program participation roughly doubled the gain at second grade on most measures.

(2) Preschool produces long-term education gains. Two studies of preschool have followed children into adulthood. The High Scope Perry Preschool and the Chicago Child-Parent Centers both found substantial gains in high school graduation of study participants compared to the control groups. Perry Preschool increased high school graduation from 54 percent to 71 percent. Chicago Child Parent Centers increased high school graduation rates from 54 percent to 66 percent. Each also resulted in K-12 cost savings, and increases in lifetime earnings. (See Outcomes and Benefit-Cost Analysis on Page 14.)

(3) Preschool can reduce grade-level retention and special education costs—to schools and to children. In New Jersey, grade retention was cut in half by second grade for participating 3- and 4-year-olds. In Pennsylvania, historical school district special education placement rates

were reduced from 18 percent to 2.45 percent for PreK Counts children; 3-year olds who participated for two years showed the greatest gains.

Each child qualifying for special education in Washington is funded at an average of \$5,400 per year, in addition to the basic per student allocation. As of May 2011, 135,852 (13%) Washington students were receiving special education services. Every one percent reduction in special education placements (1,359 students) will save the state approximately \$7.3 million per year. To illustrate the magnitude of potential savings, cutting special education placements in half, like New Jersey, would save \$366 million each year. (p.9)

These compelling three points concerning public preschool education may lead educational leaders to consider preschool as an effective avenue for preparing children for success not only in kindergarten, but throughout their entire educational career. Isaacs (2012) summarizes these three previously discussed points in the following powerful statement, "School readiness has effects beyond the first few months of kindergarten; children with higher levels of school readiness at age five are generally more successful in grade school, are less likely to drop out of high school, and earn more as adults, even after adjusting for differences in family background" (Duncan et al., 2007, 2010 as referenced by Isaacs 2012, p. 2). "Entering school ready to learn can improve one's chances of

reaching middle class status by age 40 by about 8 percentage points, according to a recent analysis that uses linked data sets to track success from birth to age 40” (Winship, Sawhill and Gold, 2011 as referenced by Isaacs 2012, p. 2).

In another compelling article, Isaacs (2011) states, “With respect to maternal education, we find higher levels of education predict higher achievement” (p. 1). The studies conducted showed significant differences in the addition of just one extra year of schooling for the mother: “Our estimates imply that an additional year of school would increase math and reading scores by 0.06 to 0.09 standard deviations” (p. 1). Isaacs (2012) suggests that there are several risks for students of poverty, and explores effective methods to prepare students for Kindergarten:

Poverty is one of several risk factors facing poor children... In addition to poverty, key influences on school readiness include preschool attendance, parenting behaviors, parents’ education, maternal depression, prenatal exposure to tobacco, and low birth weight. For example, the likelihood of being school ready is 9 percentage points higher for children attending preschool, controlling for other family characteristics, and is 10 percentage points lower for children whose mothers smoke during pregnancy and also 10 percentage points lower for children whose mothers score low in supportiveness during parent-child interactions... Preschool