PRE-LITERACY SKILLS DIFFERENCES AND ACQUISITION AMONG PRESCHOOL CHILDREN

By

JOY BUDINE

Submitted to

The Department of Professional Education Faculty
Northwest Missouri State University
Department of Professional Education
College of Education and Human Services
Maryville, MO  64468

Submitted in Fulfillment for the Requirements for

61-683-40 Research Paper
Fall 2013

April 11, 2014
Abstract

The purpose of this study was to determine the effect of socio-economic status and the rate of acquisition of pre-literacy skills by comparing two groups of preschool aged children, low socio-economic and high socio-economic, with a screening instrument in the language area of development. The study was conducted by comparing the two groups of children’s DIAL 4 Language area scores that were acquired before beginning preschool in August of 2013. The analysis results indicated that there was a significant difference between the high and the low socio-economic groups of preschool children. The finding of this study shows how the socio-economic status does affect the pre-literacy acquisition rates. After compiling and review of the finding of this study, research and literature, it is found that there is a gap in these acquisition rates that needs to be addressed by the field of early childhood education. It was found that the low socio-economic status does affect the DIAL 4 Language area by lowering the scores when this group is compared to the high socio-economic status group of preschool aged children.
Introduction

*Background, Issues and Concerns*

As an early childhood classroom teacher in five different school districts and in three different types of preschool classrooms—the differentiation of pre-literacy skills demonstrated by students and the rate at which these types of skills are acquired in each style of the three classrooms. There have been concerns raised as to the rate at which the impact of socioeconomic status influences this factor. Now that the common core standards are in place in our school districts, even in kindergarten, it is important that children enter kindergarten prepared to learn or possibly even having the expectation that many of the pre-literacy skills are mastered. Some may wonder if there is a difference or a relationship between the socioeconomic status of families and the rate at which these pre-literacy skills are acquired. Researchers are concerned that what is DAP (Developmentally Appropriate Practice) in early childhood classrooms is not what is happening when it comes to the acquisition of these types of skills.

*Practice under Investigation*

The practice under investigation will be looking at DIAL4 (Developmental Indicators for the Assessment of Learning 4) scores of three, four and five year olds in the title preschool program compared to the scores of preschool children in a private provider program preschool program. There will be an investigation to see if there is a significant difference in DIAL4 scores in pre-literacy skills between children entering kindergarten from the title preschool program or the private preschool. The information will be obtained from a survey of title 1 program families, private provider program families and their teachers.
School Policy to be Informed by Study

Each child is required by the State of Missouri to be five years of age before entering the kindergarten program, so if there is a significant difference in DIAL4 scores based on title 1 or private provider preschool programs, teachers should make sure they are providing a wide variety of DAP activities in each type of classroom, so they are able to reach all students in order for them to prepared to enter kindergarten with pre-literacy skills that are necessary to improve learning.

Conceptual Underpinning

Every preschool child in the classroom is different and requires individualized instruction and assessment. One major difference educators adhere to is socioeconomic status. Children all learn differently. Research has proven that parents who are making impact as their child’s first teacher has improved the stimulation that their child’s brain needs for optimal development. Parents who read regularly to their child at home, provide stimulating experiences to learn from and promote the importance of education result in children with higher pre-literacy skills prior to entering kindergarten at the age of five. Differences in children’s reading skills are established early and remain fairly stable over time (Martini & Senchal, 2012). Depending on the socioeconomic status of the family, certain strategies must be implemented by the preschool teacher in order for the child to acquire the skills necessary for acquisition of the pre-literacy skills needed to score well on the DIAL4. The students who are from the lower socioeconomic status have a tendency to experience low achievement for their entire educational career. The students who have a high socioeconomic status show to be higher achievers in their entire educational career.
Statement of the Problem

If there is a gap between low socioeconomic status preschool students (title 1) and higher socioeconomic status preschool students (private provider) the early childhood teacher needs to have strategies to implement to teach specifically to the needs of each type of preschool learner.

Purpose of the Study

To find if there is a significant difference in the acquisition rate of pre-literacy skills among low and high socioeconomic preschool students.

Research Question

RQ #1: Is there a difference among low economic status preschoolers and high economic status preschoolers acquiring pre-literacy skills?

Null Hypothesis

There is no difference between low economic status preschoolers and high economic status preschoolers in the acquisition of pre-literacy skills.

Anticipated Benefits of the Study

If there is a difference in pre-literacy skills acquisition skills between low economic status and high economic status, the teachers will need to be aware of the conditions and supply more interactive activities to provide the children with literacy experiences. The teacher will also need to provide parents with the education of the importance of having books in the home and resources that can be used to supply the home with the necessary tools that a preschooler needs to be successful.
Definition of Terms

DIAL4: Developmental Indicators for the Assessment of Learning 4 A global screener for assessing large groups of children quickly and efficiently. Published in 2011.

DAP: Developmentally Appropriate Practice. As defined by National Association of Education of Young Children: Developmentally appropriate practice, often shortened to DAP, is an approach to teaching grounded in the research on how young children develop and learn and in what is known about effective early education. Its framework is designed to promote young children’s optimal learning and development.

NAEYC: National Association of Education of Young Children Founded in 1926 by Patty Smith Hill it is a large nonprofit association in the United States representing early education teachers, para-educators, center directors, trainers, college educators, families of young children, policy makers, and advocates.

DESE: Department of Elementary and Secondary Education is the administrative arm of the State Board of Education in the State of Missouri.

PAT: Parents As Teachers Program funded by the State of Missouri has pioneered the concept of helping parents embrace their important role as their child’s first and best teacher.

Title 1: A preschool program that is funded federally to families of students in public schools who “qualify” based on income or need.

Private Program: A preschool program where families pay fees for their child to attend. There is not a sliding scale in these types of programs.
Summary

A study was conducted to see if there was a significant difference in preschoolers who attend preschool in a Title 1 program compared to preschoolers who attend preschool in a private provider. If the t-test concludes there was a significant difference, teachers should be aware of the differences and what strategies can be used to intervene in these types of situations. After this study is completed, early childhood educators can benefit by looking at the performance data and pursue professional development to accommodate for the learning differences of different level of socioeconomic preschool programs.
Review of Literature

In their statement of unacceptable trends in Kindergarten entry and placement, National Association and Education of Young Children states that more and more states in the United States of America are expecting more and more from kindergarten programs. A number of highly questionable practices have resulted from the trend to demand more of kindergarten children. “These practices include: inappropriate uses of screening and readiness tests, discouragement or outright denial of entrance for eligible children, the development of segregated transitional classes for children deemed unready for the next traditional level of school and an increasing use of retention” (National Association of the Education of Young Children, 2001, p. 3). However, it has been experience of many preschool teachers that children in different types of preschool programs show discrepancies in their scores on the Language and Literacy section of the DIAL 4 when used as a screening instrument before preschool entry.

Preschool programs and Parents As Teachers Programs have a job to do when it comes to helping parents understand the effects of interacting with their preschool aged child by reading to them daily, helping them to understand the basics of literacy acquisition and how children need these interactions to succeed in the early years of schooling to best meet the criteria of schools in our states today.

“Understanding how the home literacy environment affects the acquisition of children’s later language and emergent literacy knowledge has become of increasing interest during the past three decades. Children who acquire successful initial reading skills tend to remain good readers, while children who experience difficulty in learning to read tend to continue to have problems in reading throughout the school years” (Roberts, Jurgens & Burchinal, 2005, p.345). When parents of young children do not understand and do not participate in best practices for promoting
reading skills from a very early age, then the child can have resulting consequences for a lifetime of learning. Roberts, Jurgens and Burchinal (2005) suggest that the “frequency of shared book reading, maternal strategies and sensitivity during book reading, and children’s interest in reading” (p.346) are among some of the characteristics that may be missing in some lower socioeconomic status homes where children are not getting the implementation of strategies to increase their literacy and reading acquisition skills.

In addition to the quantitative and qualitative measures of shared book reading and the home literacy environment, it is also important to examine the role of more general characteristics of the home environment in children’s development of language and literacy skills. “It is possible that it is not just the frequency of reading, specific language-eliciting interactions, and social emotional processes that go on during literacy activities, but also more general dimensions in the child’s environment that have an impact on children’s language and literacy development. Thus, parents who are responsive, sensitive, and accepting of a child’s behavior, and who provide structure, organization, and a positive general emotional climate at home, along with stimulating toys and interactions, facilitate children’s language and early literacy development. Over the past 50 years, a body of research has demonstrated linkages between children’s home environment and their development” (Roberts, Jurgens & Burchinal, 2005, p.347).

Young (2009) states “valuable learning opportunities are available via families, childcare, preschool and community experiences and yet these are not always used to advantage, particularly for early literacy. A recent analysis into the costs and benefits of high quality early childhood education determined a greater change for school success was possible where social, pre-literacy skills were emphasized” (p.163).
All families who live in the same demographic area have access to all community and educational resources, but the amount of money that they have to spend on the opportunities limits them to participating and enhancing these learning experiences for their young child. “Despite increased research focusing on the way young children develop early literacy understanding prior to school, results show that not all children have the opportunity of developing emergent literacy understandings, and inequality of opportunity still exists” (Young, 2009, p.164).

Relating these studies to the connection between the type of preschool that a child is enrolled in and the rate of their literacy acquisition skills are also dependent upon the interaction that they are getting from their family and how well the family chooses to seize the opportunities that are at hand for the child to participate in. “Early childhood settings can provide positive literacy learning environments that support the development of emergent literacy understandings” (Young, 2009, p.165).

There are multiple influences that affect the young child’s development in the area of language and literacy. A child’s literacy abilities at school entry are strongly influenced by socioeconomic status. “Maternal education has been shown to be a stronger predictor of a composite of socioeconomic status than income or welfare receipt status in low-income preschool children. Research has provided evidence of a link between the education level of caregivers and school-age children’s abilities” (Dice & Schwanenflugal, 2012, p.2208). The importance of having well educated staff in preschool settings across the board is shown to be productive in this statement. Often the early start agencies in the US are filled with personnel who are only trained with childcare hours and not certificated staff. The difference in organizations across the field and the expectations that are widely held for the staff are a factor
of the education that private providers give and those who serve low socioeconomic families as well.

A preschool aged child will need several factors present to help close the gap between being a successful reader at later grades. “Many preschoolers begin their first year of formal schooling with varying levels of emergent literacy skills, and this is variability is largely affected by prior home environments” (Callaghan & Madelaine, 2012, p.13). “The gap present in literacy skills on school entry is particularly significant, given that early reading failure is linked to long-term reading failure and we are able to identify students in the preschool who are ‘at-risk’ of reading failure or show profiles on preschool assessments” (Callaghan & Madelaine, 2012, p.14). The assessment of the DIAL 4 shows DAP language and literacy skills for the preschool age child, therefore in comparing the scores of two different groups of children: one from a private provider and the other from a Title 1 Preschool program, this supports the theory that education of these pre-literacy skills at an early age is so very important. “Unless effective early literacy intervention takes place at the preschool level, children will be likely to enter their formal years of schooling with highly variable levels of early literacy skills. Furthermore, it is evident that a higher level of variability exists between children from lower socioeconomic status background compared to those from middle-to-high socioeconomic backgrounds. We also know that the pattern of reading failure may be well entrenched before formal reading instruction takes place” (Callaghan & Madelaine, 2012, p.20).
Research Methods

Research Design

A quantitative study was conducted to see if there is a significant difference in acquisition of pre-literacy skills in preschool students who attend Title 1 preschool and those who attend private preschool programs. The independent variable being tested was socioeconomic status, while the dependent variable was scores from the DIAL4 Language Area. If the difference is found significant, then preschool teachers in programs, especially those of low socioeconomic families, should find professional development to support the literacy development rate in the preschool classroom and how pre-literacy skills can be encouraged at home through parents.

Study Group Description

70 Students from two different preschool programs (35 from a private provider and the other a Title 1 program) in the area of who have reported DIAL4 scores in 2013 were chosen for the group evaluated.

Data Collection and Instrumentation

Data was collected from both programs to identify entry scores from the DIAL4 of preschoolers in the title 1 program and the private program in the year 2013.

Statistical Analysis Methods

A t-test was conducted to find if there is a significant difference in DIAL4 pre-literacy scores based socioeconomic status. The source was broken into two categories: high socioeconomic status and low socioeconomic status. The mean, mean D, t-test, df, and p-value were concluded from this test. The Alpha level was set at 0.25 to test the null hypothesis: There
is no difference between low economic status preschoolers and high economic status preschoolers in the acquisition of pre-literacy skills.
Findings

A t-test was conducted to decipher whether there was a difference in performance on the 2013 DIAL 4 screening in the Language Area based on socioeconomic status. The following tables, graphs, and charts will depict the organized findings based on the statistical raw data found from Parents As Teachers screening reports.

Figure 1

**t-test Analysis Results for 2013 High and Low Socioeconomic Status’ as compared with the DIAL4 Language Portion**

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>Mean D</th>
<th>t-test</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low socioeconomic</td>
<td>15.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High socioeconomic</td>
<td>27.1</td>
<td>-11.34</td>
<td>-1.23</td>
<td>6.8000E1</td>
<td>4.95160E-19</td>
</tr>
</tbody>
</table>

Note: Significant when p<=0.25

The independent variables were the two groups of socioeconomic status of low and high. The dependent variable was DIAL4 Language Area Raw scores. 70 preschool aged children were divided into 2 groups. There were 35 children in the group with the low socioeconomic status and 35 children in the group with the high socioeconomic status. The mean DIAL4 Language Area score for the low socioeconomic group was 15.8, while the mean DIAL4 Language Area score for the high socioeconomic group was 27.1. The difference between the mean scores (Mean D) was -11.34. The t-test value was -1.23. The degrees of freedom were 6.8000E1. The null hypothesis was: There is no significant difference in DIAL4 Language Area scores between the low socioeconomic group of preschool children (Title 1) and the high socioeconomic group of preschool children (private provider preschool programs). The p level
was 4.95160E-19 and the alpha was .25. This means that since the p-value is less than the alpha level, the null hypothesis is rejected. This means that there is a significant difference between the preschool children of low socioeconomic status and preschool children of high socioeconomic status when screened with the DIAL4 in the Language portion of the screening tool.
Conclusions and Recommendations

The outcomes reported from this study show that students who have a high socioeconomic status, when in preschool, have a higher score on the DIAL4 Language Area of the screening tool. This means that they have the ability to give personal information, articulate, name objects and their actions, sing the entire alphabet song, name eight letters of the alphabet and say their sounds, rhyme words and identify objects when given a specific letter phoneme and they are also good at giving solutions to problems. The t-test results show that the screenings that were done indicate that the low socioeconomic group is to a disadvantage when acquiring pre-literacy skills during the preschool years. The p-value 4.95160E-19 as compared to the alpha level of .25 shows a significant difference between the different socio-economic groups. The mean of the high socioeconomic group was 27.1, whereas the mean of the low socio-economic group was 15.8. This is a difference of -11.34, the mean D. The result of the superior scores of the high socio-economic group puts the low socio-economic group as a disadvantage before their educational career even begins in the rate of literacy acquisition. The t-test also shows that there is a difference between the acquisition abilities of high socioeconomic preschool children and low socioeconomic preschool students. The null hypothesis is rejected with confidence.

The conceptual underpinning stated that all children learn differently, but the rate of pre-literacy skills in the low socio-economic group will tend to be lower than those of the high socio-economic group due to the lack of stimulation that the young children are given by their caregivers or their parents, their first teachers. This study shows with the results of the data that children who are from the low socio-economic group already scored lower on the DIAL 4 in the language area than those of the high socio-economic group. The data shows that the high socio-economic group scored higher and had a higher mean than the children in the low socio-
economic group, therefore the preschool teachers of the low socio-economic groups should take these results into consideration when educating the families and children of the low socio-economic group. The teachers should realize by reading this research that the more impact that they can make with the families and the children could affect their entire educational career.

Other areas of academic performance could be related to this study as well as pre-literacy skills, such as math and motor skills. A study of the same nature could be conducted with the DIAL4 information in the remaining areas to find if there is a significant delay in the low socioeconomic group.

Professional development needs to occur across the state to ensure early childhood teachers are aware of learning differences these two groups of preschool children. When teachers are able to see data that shows each group learns and performs differently on these types of screenings, they are more willing to try to adapt their teaching styles to ensure success for all students. Teachers need supplemental information about this gap to try to narrow it as soon as possible so one group does not progressively fall behind. As well as Teachers across the state, the Parent Education Organization such as Parents As Teachers should be made aware of these existing influences in preschool children’s learning acquisition rates. Perhaps even more funding should be put into servicing these types of low socioeconomic status families so that the preschool children are not at a disadvantage when acquiring the skills that they will need to perform well on all literacy endeavors throughout their school career.

Teachers who are aware of the gap that falls between these two groups of preschool children should have direct access to the funding and professional development to help these types of at-risk children prepare for success.
References


http://www.naeyc.org/files/naeyc/file/positions/Psunacc.pdf


