Examining Academic Achievement in First-Born Native and English Language Learners

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FACULTY APPROVAL

Examining Academic Achievement in First-Born Native

and English Language Learners

Approved for the Faculty

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ABSTRACT

The purpose of the quantitative research study was to determine the extent to which first-born ELL children may realize greater academic success at the fourth grade level. To accomplish this purpose, a review of selected literature was conducted. Additionally, baseline data detailing academic success of selected first-born English Language Learner fourth grade students was evidenced by DIBELS testing and Houghton Mifflin Theme Test scores. From this data, related inferences, conclusions, and recommendations were formulated. The fundamental research question on which the study focused indicated that, while first-born English Language Learner students' scores increased over the school year, their scores were still significantly below first-born native English speakers.

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CHAPTER 1

Introduction

Background for the Project

According to Forer (1977), "first-born children have a high need for achievement, strong self-discipline, and have high responsibility scores. All of these traits contribute to specific personality and learning achievement levels of first-born children" (p. 87).

In the above statement Forer recognized that birth order has significantly contributed to specific character traits in first-born children. First-born children tend to display certain character traits such as a high need for achievement and a higher positive self-concept.

Cohen and Beckwith (1976) contended that first-born children have received greater attention, verbal stimulation, and a greater pressure to achieve. Because there were not other siblings around to diminish the amount of attention that was bestowed on the first-born child, these individuals thrived in an adult vocabulary-rich environment.

The authorities cited above have addressed the important role that birth order can play in enhancing student academic growth and achievement and, in doing so, have established the context of the present study.

Statement of the Problem

The writer (Tonya Robel Wetch) a veteran fourth grade teacher at Nob Hill Elementary School in Yakima, Washington, has observed that native English first-born students are typically high academic achievers. Seeking a greater

understanding of this phenomenon, the writer undertook an in-depth study to explore the characteristics of this specific ELL population and to articulate generalized perceptions related to their high academic performance.

Phrased as a question, the problem which represented the focus of the present study may be stated as follows: To what extend did a selected population of first-born ELL students at Nob Hill Elementary School achieve high academic success as measured by fourth grade DIBELS and Houghton Mifflin Theme Test scores?

Purpose of the Project

The purpose of this quantitative research study was to determine the extent to which first-born ELL children may realize greater academic success at the fourth grade level. To accomplish this purpose, a review of selected literature was conducted. Additionally, baseline data detailing academic success of selected first-born ELL fourth grade students was evidenced by DIBELS testing and Houghton Mifflin Theme Test scores. From these data, related inferences, conclusions, and recommendations were formulated.

Delimitations

The study, which was conducted during the 2007-2008 school year, was limited to a population of twenty-one selected students from the writer's fourth grade elementary classroom at Nob Hill Elementary School in Yakima, Washington. Participants included eleven girls, ten boys, and six ELL students. All six ELL students were first-born children. Ages ranged from nine to ten

years of age and had an even mixture of Hispanic and Caucasian students represented.

Assumptions

A basic assumption was made that first-born students would perform at a higher academic level and would achieve greater academic success at the elementary grade level. A further assumption was made that the students selected as the research population for this study would be adequate for reaching conclusions that would demonstrate a higher level of academic achievement and success.

Finally, it was assumed that exploring the relationship between birth order and personality type would benefit the writer by allowing/enabling her to identify these students early on for customized education. Selected challenging learning activities tailored to their academic strengths would be implemented.

Hypothesis

First-born children, including ELL students, who receive greater exposure to language will allow for greater literacy and academic success in the intermediate elementary grades.

Significance of the Project

The study provided an opportunity for the writer to conduct an in-depth investigation of the relationship of birth order to academic success and achievement at the intermediate elementary level. This knowledge and understanding would afford the writer the opportunity to earlier identify these

students in order to meet their needs for challenging academic material suited for their individual academic strengths. Sharing this research with other educators might possibly benefit them and also enhance their ability to identify and more effectively educate first-born children.

Procedure

Preliminary to the 2007-2008 school year, the writer asked permission of the building administrator to use specific test data from the writer's classroom, namely native and first-born ELL students, to investigate the hypothesis of the study. In September, 2007, students selected to participate in the present research study first had to be identified as English Language Learners. To accomplish this, the writer obtained the student's Washington Language Proficiency Test (WLPT). After the WLPT identified an ELL student, the writer determined if the student was an only-child ELL, a first-born ELL, or a later-born ELL by researching the student's registration form. On this form, parents/guardians list any other siblings living with the student.

Throughout the 2007-2008 school year, the writer gathered DIBELS scores in September, January, and May. Houghton Mifflin Reading series scores were gathered every six weeks throughout the school year. During spring 2008, test results were tabulated and evaluated to assess participating student's academic performance during the 2007-2008 school year.

Definition of the Terms

Significant terms used in the context of the present study have been defined as follows:

affective filter. An affective filter is a 'wall' that a learner puts up if his/her anxiety level is high. The lower the learner's anxiety level, the lower the learner's affective filter. ELLs must have a low affective filter in order to learn English. The more comfortable students are in their school environment, the more ready they will be to learn.

Cognitive Academic Language Proficiency (CALP). Cognitive Academic Language Proficiency (CALP) is the more abstract dimension of language that includes being able to read, write, and perform within a content-area classroom at grade level. CALP takes from 5 to 12 years to develop, depending on a multitude of variables for each ELL student.

Dynamic Indicators of Basic Early Literacy Skills (DIBELS). The Dynamic Indicators of Basic Early Literacy Skills is a formative early literacy assessment. It is used by kindergarten through sixth grade teachers in the United States to screen for whether students are at risk of reading difficulty, and to monitor student progress and guide instruction.

first-born children. Children that the first-born offspring in their family or the first-born offspring in a family where the other children are 18 years or older.

Houghton Mifflin Theme Tests. An set of six assessments consisting of the following reading and vocabulary skills: predicting/inferring; monitoring/clarifying; comprehension/comparing texts; structural analysis of words and vocabulary; language and grammar skills; narrative and expository writing skills.

quantitative research. The collection of numerical data to explain, predict, and/or control phenomena of interest.

Washington Language Proficiency Test (WLPT). WLPT measures the students' proficiency of the English Language in the areas of Reading, Writing, Speaking, and Listening.

Acronyms

CALP. Cognitive Academic Language Proficiency

DIBELS. Dynamic Indicator of Basic Early Literacy Skills

ELL. English Language Learner

L1. First Language

L2. Second Language

SES. Socio-Economic Status

YSD. Yakima School District

CHAPTER 2

Review of Selected Literature

Introduction

The review of literature and research summarized in Chapter 2 was organized to address:

General Characteristics/Personality Traits of First-Born Children

Language Experience and Development

Educating First-Born English Language Learners

Summary

Data current primarily within the last ten (10) years were identified through an online computerized literature search of the Educational Resources Information Center (ERIC), the internet, and Proquest. A hand-search of selected research materials was also conducted.

General Characteristics/Personality Traits of First-Born Children

Throughout time, first-born children have been afforded opportunities related only to the order in which they were born. In 15th century Europe, the first-born child inherited the family land, buildings, and any royal title that might have been given by the monarch of the day. In today's society, first-born children are still afforded opportunities that their later-born siblings are not (Hoff-Ginsburg, 1998).

According to Forer (1977), "first-born children have a high need for achievement, strong self-discipline, and have high responsibility scores" (p.

98). All of these traits have contributed to specific personality and learning achievement levels of first-born children.

Adler (1963), a major personality theorist, concluded that "the demands of birth-order position structure the way parents have typically treated a child". This also helped define the child's personality. First-born children have generally been concerned with issues of authority and power, and seek to attain these 'goals" with high levels of achievement. During periods of high stress, these children have tended to conform to the high expectations of others, namely their parents and become more dependent on them.

According to Parker (1998), first-born children developed language and vocabulary skills more rapidly than second-born children because of the adult-rich environment that they were immersed in. The high demands, expectations, and attention they received from their parents influence their personality types. First-born children have a great need for achievement and conformity because of the role they have been placed in as the first-born child in a variety of families.

A study included by Eisenman (1970) reported that later-born children have a less positive self-concept than first-born children do. In addition, self-concept was generally lower in middle-born children than in younger or first-born children. Forer (1977) described the following personality traits as being typical of first-born children:

1. high need for achievement
2. high responsibility scores
3. low test anxiety
4. low text anxiety

5. need for approval from others
6. conformity to authority and regulation
7. high task orientation

Because of first-born children's desire to gain power and authority through achievement, many first-born children were found to be in Advanced Placement Courses in junior high and high school. Most had earned above-average grade point averages and had excelled at sports and extracurricular activities. Because of high expectations placed on first-born children by families and community members, these individuals were not likely to rebel against authority as teenagers. Rather, when faced with high stress, they would conform to the high standard set for them.

Cohen and Beckwith (1976) contended that first-born children have received greater attention, verbal stimulation, and a great pressure to achieve. Because there were not other siblings around to diminish the amount of attention that was bestowed on the first-born, children thrived in an adult vocabulary-rich environment.

A study conducted by Hall et al. (1980) revealed that Olympic weight lifters were overwhelmingly first-born children. These athletes were characterized by a more external locus of control (their coach) and a greater need for achievement, thus supporting the seven personality traits cited earlier by Forer.

Researched conducted by Phouts (1980) demonstrated that first-born children achieved at a higher level than second-born children do, even with the second-born child is more academically gifted. Schooler (1972) was critical of

the methodology used in many of the birth order studies, claiming that early-born children achieved at a higher level than later-born children because of socio-economic status.

The characteristics of first-born children have posed challenges to both parents and teachers whose expectations are that these children will achieve significantly greater academic success in school than later-born children (Forer, 1977).

Language Experience and Development

Intellectual growth has been enhanced or hindered by immediate family circumstances, which by birth order are different even for children of the same family. Comparisons have been done of first-born children and their siblings in relation to linguistic experiences. During a first-born's pre-sibling period, the first-born interacts with mainly adults. The child is exposed to sophisticated language, a rich vocabulary, and a variety of life experiences. Being surrounded by adults gives the child the auditory access to a larger pool of words.

However, a later-born sibling who has younger siblings hears a less diverse and more limited language, has less interactive access to parents, and witnesses less often the process and product of adult thought processes. This child hears the language of toddlers because he/she lives in a toddler world. The pool of words the second-born child is exposed to is restricted, more primitive, and does not afford the formation of complex sentences (Jones & Adamson, 1987).

Hart & Risley (1995) were able to quantify the pool of words in which children were exposed to. These authorities reported that children of parents on public assistance heard about 600 words per day, children of working-class parents heard about 1,200 words, and children of professional parents heard as many as 2,100. This research indicated that vocabulary development and growth was influenced by the intellectual home environment of the child. Further, the more intellectually mature the growing child was, the more advanced were the verbal, analytical, and conceptual skills he/she possessed.

Although first-born children cannot fully converse at the level of their parents, there were more one-on-one communication between parent and child, more question-asking dialogue, and the child did not have an older sibling to "translate" their needs, desires, and wants to the parent. They learned to do this by themselves. This attention and stimulation at an early age helped influence the precocious and self-assured personality that is seen in the majority of first-born children (Cohen & Beckwith, 1976).

Another study conducted showed that a gap between successive births was important. For the last born, a gap of six years is better than a gap of two years there was a sibling who knew more of what he/she needed to know (Zajonc & Mullally, 1997). Another study conducted by Carlsmith (1964) found twins had a poorer environment because both had an immature sibling at birth. Children in one-parent families were also at a disadvantage because there was only one parent to contribute to the average level of intellectual environment. However, a larger number of adults such as uncles and aunts, grandparents,

and child-care persons provided an environment that was richer in intellectual resources.

First-born children in a family or two or more have often acted as an extra parent. The first-born's younger siblings asked questions about the meaning of words, needed helped with various tasks (e.g. how to hold a crayon), and they asked their older sibling to explain how things worked or why they worked a certain way. Basically, the first-born child became a tutor for the younger siblings. This has shown to enhance mental growth and academic achievement. However, older siblings did not begin to benefit from their teaching function until the younger sibling could begin to ask questions, usually around age two (Bargh & Schul, 1980).

A study conducted by Pine (1995) explored the age at which 50-word and 100-word milestones were met for the first-born children in the first years of life and then compared the results with second-born siblings. Vocabulary of first-born children tended to develop more rapidly than vocabulary of second-born children. Pine discovered a significant difference between when first-born children reached the 50-word milestone, but there was not a significant difference in when both first-born and second-born children reached the 100-word milestone. This result provided some support for the view that vocabulary development of first-born children tended to progress faster than that of later-born children. The significant difference was about a month difference, on the average, and there was a strong relationship between siblings in the study.

Hoff-Ginsberg (1991) cited growing evidence supporting the belief that both the nature of children's language experience and the course of their language development varied as a function of birth order. The consequence of birth order on children's development affected their learning later in life. Because language development potentially affected social and cognitive development as well as school achievement, understanding the effects of birth order was crucial to understanding other learning processes. Hoff-Ginsberg (1991) found that college-educated mothers differed from high-school educated mothers in the way they spoke to their children. This showed that there was an education-related difference in children's language experiences. Although first-born children do not necessarily retain their only-child status, they had a greater possibility for experiencing one-to-one interaction with an adult than later-born children.

When a sibling was present in the family structure, each child received less speech solely directed at him or her. This was because mothers produced the same amount of speech whether interacting with one or two children (Hoff-Ginsberg, 1998). Barnes & Lyons (1991) agreed that first-born children had an advantage in language development because more speech was directed to them. This study indicated that the amount of speech and access to one-on-one interaction with adults was a positive predictor of children's language development.

In a study conducted by Fenson et al. (1994), first-born children were found to have larger vocabularies than later-born children. Pine (1995) found

that first-born children reached the 50-word milestone on average one month sooner than their siblings did. Bates (1975) supported that finding in that first-born children and only children scored higher on language measures than later-born children.

Consistent with the greater amount of language learning experiences, first-born children appeared to have an advantage in vocabulary development (Hoff-Ginsberg, 1998). A significant effect of birth order and the number of words used by children showed that first-born children used richer vocabulary than later-born children. During the study, it was discovered that mothers used shorter sentences and asked more questions to later-born children than did mothers talking to first-born children. Mothers of first-born children talked more to their children, used a richer vocabulary, continued the topic of their child's prior utterances, and frequently asked more questions. First-born children were more advanced in vocabulary and grammar than their later-born counterparts. Further, first-born children were found to be more advanced on standard measures of language development. One difference was later-born children were more likely to use social routines to fill their role in conversation. For example, a later-born child would pull their mother's hand to the kitchen counter where a cookie jar was located rather than attempt to vocalize their wishes. First-born children would be more likely to ask for a cookie rather than use social routines as a later-born child would.

First-born children developed language and vocabulary skills more rapidly than second-born children because of the adult-rich environment that

surrounded them. The high demands, expectations, and attention first-born children received from their parents influenced their personality type. First-born children had a greater need for achievement and conformity because of the role they played as the first-born child in a family (Jones & Adamson, 1987).

Educating First-Born English Language Learners

According to the U.S. Department of Education Office of Civil Rights (2003), non-English-speaking students represented the fastest growing segment of the public school population with an annual increase of 10%. As a result, the greatest obstacle that teachers have confronted in education has been the increasing number of students with limited English skills.

As quoted in the article, "Research Base for CAL's Professional Development" (www.cal.org, 2008):

> Research studies have documented that proficiency of instruction for students learning English to reach parity with their native English speaking peers, skilled teachers are essential to schools' effort to close the achievement gap between English speakers and English language learners (p. 1).

The above cited article identified the three principles, as summarized below, for second language acquisition that teachers have implemented to adapt instruction for English Language Learners (ELL). The first principle focused on increased comprehensible input focused on making meaning clear

through visual aids, demonstrations, and realia. This principle requires the teacher to use language that is understandable for the learner.

Krashen (1985) agreed that comprehensible input was a prerequisite for language acquisition. Krashen stated:

> The best methods are therefore those that supply comprehensible input in a low anxiety situation that contain messages that students really want to hear. These methods do not force early production in the second language, but allow students to produce language when they are ready, recognizing that improvement comes from supplying communicative and comprehensible input, and not from forcing and correcting production (http://www.sk.com.br/skkrash.html, 2008).

The second principle called for increasing comprehensible output through student-to-student interaction by engaging students in using English to accomplish academic tasks. According to this principle, students can enhance their language acquisition though increased participation with peers by explaining their though processes through the use of oral and written means.

According to Herrell and Jordan (2004), many strategies used in the classroom helped accomplish this principle. For example, teachers provide visual scaffolding in which they provide language support through visual images. Realia strategies, using real-life items to bring the lesson 'alive' have connected language acquisition to the real world. Finally, scaffolding academic language by activating prior knowledge supported all students in the use of language in academic situations.

The third principal focused on increasing higher-order thinking and study skills. For example, teachers intentionally teach thinking skills, study skills, and learning strategies to help develop all students, but especially ELL students, as effective independent learners. This principle revolved around the concept that academic language or Cognitive Academic Language Proficiency (CALP) was the ability to use language for higher order thinking and communicating. Students must be given support and opportunities in a variety of academic areas to become proficient in academic language. For example, academic language became cognitively challenging to students because of new ideas, concepts, and language that were taught concurrently. Skills such as synthesizing, evaluating, comparing, classifying, and inferring to support academic language must be taught by teachers to develop language in higher order thinking and communicating (www.cal.org, 2008.)

Thus, if a student had motivation, high self-confidence, and low anxiety, their affective filter would allow second language learning to occur. However, if a student has low self-esteem, high anxiety, and little motivation, then their affective filter would impact their learning of a second language (Shutz, 2002). Thomas and Collier agreed with Shutz when stating:

"It is crucial that educators provide a socio-culturally supportive environment that allows natural language, academic, and cognitive development to flourish in both L1 and L2"(p. 44).

Summary

The review of selected literature reported in Chapter 2 supported the following research themes:

1. First-born children attained higher educational levels than second-born.
2. Language-rich environments are related to a child's academic success.
3. Cognitive Academic Language Proficiency development is tied to high academic achievement in ELLs.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The purpose of this quantitative research study was to determine the extent to which first-born ELL children may realize greater academic success at the fourth grade level. To accomplish this purpose, a review of selected literature was conducted. Additionally, baseline data detailing academic success of selected first-born ELL fourth grade students was evidenced by DIBELS testing and Houghton Mifflin Theme Test scores. From these data, related inferences, conclusions, and recommendations were formulated.

Chapter 3 contains a description of the methodology used in the study. Additionally, the researcher included details concerning participants, instruments, design, procedure, treatment of the data, and summary.

Methodology

Undertaking the present quantitative research study involved collecting numerical data to test the hypothesis and to seek greater understanding of first-born ELL and native-English speakers. The researcher (Tonya Robel Wetch) used DIBELS and Houghton Mifflin Theme Test scores to collect the numerical data. These two assessments were adopted by the Yakima School District (YSD) and were intended to measure fourth grade student literacy skills, including vocabulary, fluency, and comprehension.

Participants

Participants included in the quantitative research study were enrolled in the writer's fourth grade during the 2007-2008 school year. Students were in a self-contained fourth grade classroom at Nob Hill Elementary School in Yakima, Washington. The 90-minute reading block consisted of eleven females and ten males. The six participating first-born ELL students consisted of two males and four females.

Instruments

Beginning in fall 2007, participating students were administered three separate DIBELS and six Houghton Mifflin Theme Assessments. In the writer's fourth grade classroom during the 2007-2008 school year, the 6 first-born ELL students were selected from the twenty-one students in the reading block classroom. All students were DIBELS tested in fall 2007, winter 2008, and spring 2008. All students were assessed using district-adopted curriculum consisting of six Houghton Mifflin Theme Tests. Each of the assessments administered every six weeks covered the following reading and vocabulary skills:

Predicting/Inferring; Monitor/Clarify

Comprehension/Comparing Texts

Structural Analysis of Words and Vocabulary

Language and Grammar Skills

Writing Skills

Design

This quantitative research design utilized the results of the DIBELS and Houghton Mifflin assessments to obtain essential baseline data from which related inferences, conclusions, and recommendations were formulated.

Procedure

Procedures employed in the present study evolved in several stages including:

1. During fall, 2007, the writer sought and obtained permission from Mr. Gary Hill, Principal of Nob Hill Elementary School in Yakima, Washington, to undertake the present study.
2. In September, 2007, students selected to participate in the present research study first had to be identified as ELLs. To accomplish this, the writer obtained the student's Washington Language Proficiency Test (WLPT).
3. After the WLPT identified an ELL student, the writer determined if the student was either an only child ELL, a first-born ELL, or a later-born ELL.
4. Throughout the 2007-2008 school year, test data were collected and recorded using the DIBELS and Houghton Mifflin Theme Tests.
5. Essential data were obtained and analyzed throughout spring 2008 which provided information needed to formulate related conclusions and recommendations.

Treatment of the Data

The study sought to determine the extent to which a selected population of first-born ELL students at Nob Hill Elementary School in Yakima, Washington, achieved higher academic success, as evidenced by fourth grade DIBELS and Houghton Mifflin Theme Test scores.

Summary

Chapter 3 provided a description of the research methodology employed in the study, participants, instruments used, research design, and procedure utilized. Details concerning treatment of the data obtained and analyzed were also presented.

Chapter 4

Analysis of the Data

Introduction

The present study sought to determine the extent to which first-born ELL children may realize greater academic success at the fourth grade level.

Chapter 4 has provided details concerning a description of the environment, hypothesis/Research question, result of the data, findings, discussion, and a summary.

Description of the Environment

The present study was limited to a population of twenty-one selected students from the writer's fourth grade elementary classroom at Nob Hill Elementary School in Yakima, Washington. Participants included eleven girls, ten boys, and six ELL students. The six selected ELL students were first-born children. Ages ranged from nine to ten years and had a balance of Hispanic and Caucasian students represented.

Hypothesis

First-born children, including ELL students, who receive greater exposure to language will allow for greater literacy and academic success in the intermediate elementary grades.

Results of the Study

Table 1 reported the results of the 4th Grade Houghton Mifflin Theme Test scores for the 2007-2008 school year. On Theme 3, none of the first-born ELL students made the 80% benchmark. On Themes 4 and 5, two of the six

first-born ELL students made the benchmark. On Theme 6, five of the six first-born ELL students made the benchmark.

Table 2 revealed the results of the 4th grade Dynamic Indicators of Basic Early Literacy Skills for the 2007-2008 school year. All six first-born ELL students made the greatest improvement between fall 2007 and winter 2008 averaging between five and twenty-seven points. Between winter 2008 and spring 2008, participants averaged only between two and seventeen points. These data indicated that first-born ELL students made significant gains at the beginning of the school year rather than the end of the school year.

Findings

Analysis of data in Table 1 disclosed the results of the 4th Grade Houghton Mifflin Theme Test scores for the school year of 2007-2008. Theme 1 and 2 were given with teacher assistance. The selected first-born ELL students improved an average of ten points from Theme 3 to Theme 6. On Theme 6, five out of the six first-born ELL students scored at the 4th grade benchmark of an 80 percent.

From an analysis of fall 2007 data reported in Table 2, the writer observed from the results of the 4th grade DIBELS Oral Reading Fluency scores that five of the six first-born ELL students (83%) were below the benchmark of 93 words per minute. In winter 2008, two of the six first-born ELL students (33%) were below the benchmark of 105 words per minute. In spring 2008, four of the six first-born ELL students (66%) were below the benchmark of 118 words per minute. Accordingly, the fundamental research question on which the

study focused indicated that, while first-born ELL students' scores increased over the school year, their scores were still significantly below native-born English speakers.

Table 1

4th Grade Houghton Mifflin Theme Test Scores, 4th Grade Classroom, Nob Hill Elementary School, 2007-2008 School Year.

Student Number	Theme 1 **(Teacher Assisted)	Theme 2 **(Teacher Assisted)	Theme 3**	Theme 4**	Theme 5**	Theme 6**
1 (AB)*	**84**	**89**	**72**	**77**	**77**	**83**
2(MB)	89	90	84	83	87	80
3 (GB)	83	91	89	96	79	95
4(IC) *	**75**	**84**	**66**	**81**	**82**	**87**
5(TC)	86	73	70	92	82	87
6(AC)	90	77	86	94	88	80
7(LC)	94	88	83	91	91	92
8(SD)	94	87	87	97	94	93
9(AI)*	**68**	**82**	**67**	**72**	**79**	**80**
10(AL)*	**88**	**71**	**78**	**84**	**86**	**89**
11(RL)	90	90	90	86	96	95
12(NP)	84	89	87	88	85	94
13(GR)*	**92**	**80**	**79**	**73**	**74**	**80**
14(KS)	90	87	77	67	83	76
15(ES)	93	97	99	90	91	96
16(MV)*	**74**	**64**	**69**	**71**	**72**	**74**
17(NW)	93	85	81	91	74	95
18(CB)	77	81	84	75	76	90
19(JD)	96	82	96	95	93	89
20(ACL)	84	82	86	94	90	80

Note: Student Numbers marked with an * indicate an ELL student.

**Each theme assessed the following skills: Predicting/Interring/ Monitor/Clarify; Comprehension/Comparing Texts; Structural Analysis of Words and Vocabulary; Language and Grammar Skills; Writing Skills

Table 2

4th Grade Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Nob Hill Elementary School, 2007-2008 School Year. Oral Reading Fluency Score

Student Number	Beginning (Benchmark 93) Fall 2007 (September)	Middle (Benchmark 105) Winter 2008 (January)	End (Benchmark 118) Spring 2008 (May)
1 (AB)*	**66**	**83**	**90**
2 (MB)	163	178	206
3 (GB)	112	124	125
4 (IC)*	**83**	**110**	**126**
5 (TC)	65	89	95
6 (AC)	90	102	119
7 (LC)	106	129	140
8 (SD)	148	159	166
9 (AI)*	**107**	**112**	**117**
10 (AL)*	**87**	**107**	**109**
11 (RL)	116	150	152
12 (NP)	139	165	188
13 (GR)*	**91**	**106**	**124**
14 (KS)	72	99	117
15 (ES)	123	155	157
16 (MV)*	**82**	**92**	**96**
17 (NW)	154	156	162
18 (CB)	91	114	115
19 (JD)	146	151	162
20 (ACL)	105	109	120

*Note: Student Numbers marked with an * indicate an ELL Student.

Discussion

As indicated in Table 1, first-born ELL's Houghton Mifflin scores increased an average of ten points over the 2007-2008 school year. Although first-born ELL students were consistently lower readers than native English speakers, their scores in Houghton Mifflin increased from Theme 3 to Theme 6. At the end of 2007-2008 school year, five out of the six first-born ELL students scored at the 4th grade benchmark of 80 percent.

Data presented in Table 2 revealed first-born ELL students DIBELS scores increased over the 2007-2008 school year. In fall 2007, only one of the six first-born ELL students was at benchmark. In winter 2008, four of the six were at benchmark, and in spring 2008, two of the six were at the final benchmark for fourth grade. However, the increase was not consistent in all first-born ELL students. While some scores increased throughout the year, only two of the six first-born ELL students were at benchmark at the end of the 2007-2008 school year.

Although not addressed in the present study, the thought subsequently occurred to the writer that due to the low number of selected students, the results of the study were more limited than might have been the case with a larger population of first-born ELL students.

Summary

Chapter 4 reviewed and detailed the description of the environment, hypothesis, results of the study, major findings, and discussion. The fundamental research question on which the study focused indicated that,

while first-born ELL students' scores increased over the school year, their scores were still significantly below native-born English speakers.

Chapter 5

Summary, Conclusions, and Recommendations

Summary

The purpose of this quantitative research study was to determine the extent to which first-born ELL children may realize greater academic success at the fourth grade level. To accomplish this purpose, a review of selected literature was conducted. Additionally, baseline data detailing academic success of selected first-born ELL fourth grade students was evidenced by DIBELS testing and Houghton Mifflin Theme Test scores. From this data, related inferences, conclusions, and recommendations were formulated.

Conclusions

1. First-born children attained higher educational levels than second-born.
2. Language-rich environments are related to a child's academic success.
3. Cognitive Academic Language Proficiency development is tied to high academic achievement in ELLs.
4. Literature benchmark scores of participating English Language Learner's showed significant improvement using DIBELS and Houghton Mifflin Theme Test score measurement systems.

Recommendations

Based on the conclusions cited above, the following recommendations have been suggested:

1. To positively impact student learning, educators responsible for instructing first-born native and ELL students should provide high expectations and standards in regard to academic and athletic achievement.
2. To impact a child's academic success, parents and educators should provide a language-rich environment.
3. To enhance high academic achievement in first-born ELL students, teachers need to provide opportunities for students to develop Cognitive Academic Language.
4. To measure improvement of literacy skills of elementary level first-born English Language Learner students, use of DIBELS and Houghton Mifflin Theme Test scores is recommended.
5. School personnel seeking information related to the academic achievement of first-born ELL students may wish to reference this study or, they may wish to undertake related research more suited to their unique needs.

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