

An analysis of dyslexic students at the elementary level

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ABSTRACT

The study researches the success rate of dyslexic students at the third, fourth and fifth grade levels on the reading portion of the TAKS test in a school district in south central Texas. In 2007, a school district in south central Texas implemented a dyslexia program, Basic Language Skills, which utilizes all learning pathways in the brain (visual, auditory, kinesthetic-tactile) simultaneously in order to enhance memory and learning. The district studied implemented the new program because the program previously used was not yielding the results that the district was desiring. The dyslexic students were not progressing, as they should. This study examined the specific population of dyslexic students at the third, fourth, and fifth grade levels to determine their success rates based on the standardized testing. The focus of the study was to determine if the dyslexic students in the district in south central Texas were being best served with the Basic Language Skills program.

Keywords: dyslexia, basic language skills, elementary level, dyslexic students

The 2001 No Child Left Behind Act (NCLB) changed the accountability system of public schools in the United States. By 2012, according to NCLB, all public school students must be proficient in reading, math, and science. The only thing schools will receive credit for is their ability to teach children to the level of proficiency of all children, not just those without disabilities (U.S. Dept. of Education, 2009). Educators need to know whether they will reach the demands of NCLB if they continue to provide the current instruction for dyslexic students. Therefore, the current study aimed to see if dyslexic children are receiving and progressing with the appropriate interventions for their disability in order for school districts to be in compliance and meet the challenges of NCLB.

Dyslexia or “word blindness” is a developmental reading disorder which is a result from the inability to process graphic symbols. The DSM-IV (cited in Daderman, Lindtren, & Lidberg, 2004), describes dyslexia, as a reading and writing disorder that could be inheritable, and, hence runs in families. Developmental dyslexia which is heritable and acquired dyslexia caused by a lesion in the brain are the two main types of dyslexia (Lyon, 1995). This study focused on developmental dyslexia.

Many definitions of dyslexia exist today but the definition that represents the most current state of the field is the one that was published by Dr. Reid Lyon (1995) in *Annals of Dyslexia*. Dr. Lyon is the Chief of the Child Development and Behavior Branch of the National Institute of Child Health and Human Development at the National Institutes of Health. He states that dyslexia

It is a specific language-based disorder of constitutional origin characterized by difficulties in single word decoding, usually reflecting insufficient phonological processing. These difficulties in single word decoding are often unexpected in relation to age and other cognitive and academic abilities; they are not the result of generalized developmental disability or sensory impairment. Dyslexia is manifested by variable difficulty with different forms of language, often including, in addition to problems with reading, a conspicuous problem with acquiring proficiency in writing and spelling. (Lyon, 1995 p. 23)

For unexplained reasons, dyslexia is a definite learning disability that inhibits the learning process in spelling, reading and/or writing, which is independent of intelligence and socioeconomic factors. Terms such as ‘dyslexia,’ ‘alexia’ and ‘word blindness’ were created by neurologists to indicate the loss of the ability to read as a consequence of presumably minor, brain damage. In 1887, Rudolf Berlin invented the term ‘dyslexia’ to symbolize the condition of a somewhat less complete loss of the reading ability compared with alexia (Hjelmquist & Euler, 2002).

As researchers were beginning to study dyslexia, they found that social and emotional difficulties could often accompany the disorder (Orton, 1937). Margaret Bruck, in her review of the research, offers two possible explanations for these problems: First, the social and emotional difficulties of dyslexia “are part or a manifestation of the same disorder as is responsible for academic failure.” (Bruck, 1986 p. 362). Second, Bruck advises that the dyslexic child undergoes moments of great stress, which creates difficulties with emotional and social adjustments because dyslexia puts the child at odds with his environment (Bruck, 1986). Their emotional problems begin to develop when early reading instruction does not match their learning style.

Reading experts believe that dyslexia embodies a combination of reading problems. These authorities cite problems such as inadequate reading instruction, psychic stress, emotional immaturity, impaired hearing and poor vision (Fletcher, Fuchs & Barnes, 2007). Authorities have

researched these areas to see what type of role they play in the academic life of a dyslexic student. Dyslexic students comprise a proportion of today's classrooms. It is crucial for educator's to become more knowledgeable about dyslexia to become more knowledgeable about dyslexia instruction and to use this knowledge to further the academic development of students.

According to the International Dyslexia Association, current studies suggest that 15-20% of the U.S. population has a reading disability (Fletcher, Fuchs & Barnes, 2007). Of those, 85% have dyslexia (Fletcher, Fuchs & Barnes, 2007). Although it is a disability, dyslexia is not a disease nor can it be cured. It is a processing deficiency. Multisensory methods of teaching are usually advocated for teaching dyslexic students, much the same as teaching a stroke victim to read again. Currently, there is not a cure for dyslexia but with the right intervention program, the dyslexic child can learn to compensate for the deficiencies (Palombo, 2001). With appropriate education, understanding, and time, many dyslexics can learn to read and write (Cloud, Genesee, & Hamayan 2000). If a child has a reading deficiency, this will affect that child year after year. A child's reading skill at the end of third grade can even be a predictor of whether or not the student will graduate from high school (Slavin & Madden, 1995).

In Texas, the identification and instruction of students with dyslexia are mandated and structured by two statutes and one rule (Texas Education Agency, 2007). Texas Education Code (TEC) §38.003 (1) defines dyslexia and related disorders, (2) mandates testing students for dyslexia and providing instruction for students with dyslexia, and (3) gives the State Board of Education authority to adopt rules and standards for administering testing and instruction (Texas Education Agency, 2007). Chapter 19 of the Texas Administrative Code (TAC) §74.28 outlines the responsibilities of districts and charter schools in the delivery of services to students with dyslexia. Finally, The Rehabilitation Act of 1973 §504 establishes assessment and evaluation standards and procedures for students (Texas Education Agency, 2007).

In 2007, a school district in south central Texas implemented a dyslexia program, Basic Language Skills, which utilizes all learning pathways in the brain (visual, auditory, kinesthetic-tactile) simultaneously in order to enhance memory and learning. The district studied implemented the new program because the program previously used was not yielding the results that the district desired. The dyslexic students were not progressing, as they should. This study looked at dyslexic students' TAKS results after implementing Basic Language Skills in order to see if the program was working.

While research abounds regarding what encompasses the reading disability known as dyslexia, there is a gap in the knowledge regarding success rates specifically for students who have been diagnosed with dyslexia (Fawcett, 2001; see also Lyon, 1995; Slavin & Madden, 1995). A need to find out if dyslexic students are progressing is imperative. If dyslexic students are in a regular education class, the program should address all of their areas of need and ensure that these students overcome the educational hurdles they face every day. The Texas Dyslexia Guidelines mandate that every school district must implement a program to assess and serve students with dyslexia (Texas Education Agency, 2007). Several programs are available for the dyslexic student. The school district that was examined in this study utilizes the basic language skills program, which is a multisensory structured program, based on the Orton-Gillingham approach. Programs that have shown to be the most effective are those programs that are based on the Orton-Gillingham approach (Fawcett, 2001). Most seem to be personalized in nature and based to fit the specific needs of the children to ensure their future success.

Not all children with dyslexia are alike. These students' intellectual capacity is average to above average and they can be labeled as gifted. There is not a simple formula for treating a

dyslexic child. Each one requires their own customized plan (Harrie & Weller, 1984). Reading at a significantly lower level than is typical of children of their age and intelligence when standard classroom reading intervention programs are used is one of the only traits they share.

Once the district has determined that a student has dyslexia, the district needs to provide an appropriate instructional program for the student. Then, a team who is knowledgeable about the student needs to make instructional decisions for the dyslexic student. The school must also provide each dyslexic student with access to services by a trained teacher in dyslexia and related disorders. Each student's parents or guardians must also be informed of all the services and options available to his or her child and the district must also provide the parents/guardians with a parent education program.

In May 1998, the State Board of Education revised the guidelines for serving dyslexic students in Texas. The Texas Education Agency published *The Dyslexia Handbook: Procedures Concerning Dyslexia and Related Disorders* to provide school districts and parents with additional information regarding the state's dyslexia law and its relationship to federal laws, Section 504 of the Rehabilitation Act of 1973 and the Individuals with Disabilities Act (IDEA). The information in the handbook was designed to help both educators and parents to provide appropriate accommodations for dyslexic students. The dyslexia handbook was revised in 2007 by the Texas Education Agency.

The State of Texas has passed legislation that mandates every student's academic achievement through the Texas Essential Knowledge and Skills (TEKS) on or above grade level by third grade and throughout their schooling. The Texas Student Success Initiative (SSI), which was passed by the 76th Texas Legislature in 1999, is the guide that educators will follow to ensure that the public school children in Texas can complete the requirements set forth by this legislation (Texas Education Agency, 2007).

The SSI requires that students in the third grade meet the standard on the Texas Assessment of Knowledge and Skills (TAKS) in reading before they can be promoted to the fourth grade. These grade advancement requirements also apply to the reading and mathematics tests in fifth grade and eighth grade.

Therefore, a need to find out if dyslexic students are progressing is imperative. If dyslexic students are in a regular education class, the program should address all of their areas of need and ensure that these students overcome the educational hurdles they face every day. The Texas Dyslexia Guidelines mandate that every school district must implement a program to assess and serve students with dyslexia (Texas Education Agency, 2007). According to Cummins (2005) reading achievement is essential for the development of other academic skills. It is important to the educational success of dyslexic students to analyze the data obtained from the Texas mandated TAKS test scores to provide evidence for this school district to continue supporting excellence in education for the dyslexic student population. It is also important that the results of the study be examined so that leaders of the school district can make informed decisions as to the future of dyslexic students in their district.

RESEARCH DESIGN

The following questions were posed for the study. The data attempted to determine if a significant difference exists in TAKS test scores among dyslexic students in a regular education classroom.

1. What is the demographic profile of dyslexic students enrolled in the school district in grades three, four and five?
2. Is there a significant difference in success rates of dyslexic students in 2007-2008, as compared to 2008-2009; as compared to 2009-2010 at the third grade level based on the reading portion of the Texas mandated TAKS test scores?
3. Is there a significant difference in success rates of dyslexic students in 2007-2008, as compared to 2008-2009, as compared 2009-2010 at the fourth grade level based on the reading portion of the Texas mandated TAKS test scores?
4. Is there a significant difference in success rates of dyslexic students in 2007-2008, as compared to 2008-2009; as compared to 2009-2010 at the fifth grade level based on the reading portion of the Texas mandated TAKS test scores?

The research was a quantitative study, specifically utilizing a Chi-square (χ^2) test. A Chi-square tests the association between categorical variables. This study was a quantitative comparative design that sought to identify the academic achievement of third, fourth and fifth grade dyslexic students based on the reading portion of the Texas mandated TAKS test. The study also sought to find whether there was a significant difference in the success rate of third, fourth and fifth grade dyslexic students in 2007-2008, as compared to 2008-2009, as compared to 2009-2010 based on the reading portion of the Texas mandated TAKS test.

Population

The district selected for this study is in south central Texas. The school district has 1,226 employees of which 573 are teachers. The district's official website also provides the following information: The total enrollment for the school district is 9,078 in the one high school, two middle schools, two intermediate schools, five elementary schools and a development center. Of the student population, 60 percent are Hispanic, 60 percent are economically disadvantaged, five percent are English Language Learners (ELL) and 51 percent are at-risk. Additionally, seven percent are in bilingual/English as a Second Language (ESL) classes, seven percent are Gifted and Talented, and 11 percent are Special Education.

The target population of the study was third, fourth and fifth grade dyslexic students in a district in south central Texas. The sample consisted of one group. The group consisted of identified third, fourth and fifth grade dyslexic students in elementary and intermediate settings. This study only utilized pre-existing data, which were the reading TAKS scores for 2007-2008, 2008-2009, and 2009-2010; therefore, there was not any contact with any human subjects. There were a total of 427 TAKS scores in the data that was collected. This data was input into the data analysis software, SPSS. The researcher was only given the TAKS scores for the years provided along with the students' gender, ethnicity, whether or not they were special education, and if they were economically disadvantaged. No other special population information was given to the researcher by the district studied.

Procedure

The first step in data analysis was to collect the data and input the scores into SPSS, a computer program used for statistical analysis. The next step was to run a Chi-square (χ^2) to answer the three research questions with the factor being students with dyslexia and the dependent variable was the TAKS scores. The reading portion of the TAKS test was the

instrument used to determine student achievement. The TAKS test has been administered to students since 2003 and is the current assessment instrument in Texas. The TAKS test measures student performance on reading, writing, math, social studies and science. The TAKS test is developed and scored by Pearson Educational Measurement with close supervision by the Texas Education Agency. Although it was created before No Child Left Behind was passed, it complies with the law. It replaced the previous test, called the Texas Assessment of Academic Skills or TAAS, in 2003 (Texas Education Agency, 2009). In this study the TAKS test was used to compare the performance of dyslexic students in 2007-2008, 2008-2009 and 2009-2010.

Results

Descriptive statistics were computed in the form of frequencies for the following variables: gender, ethnicity, economically disadvantaged, and whether or not the student was special education or not. The results showed that there were 135 dyslexic third grade students, 184 dyslexic fourth grade students, and 108 dyslexic fifth grade students across the three years combined who took the reading portion of the TAKS test. The frequency table shows that the majority of dyslexic students over the three years were fourth grade students, which accounted for 43% of the total. The third grade population was the next group with 32% of the population and the least amount of dyslexic students were the fifth grade population with 25%. This small percentage of fifth grade dyslexic students as compared to the other grades could be due to the fact that students could have been exited out of dyslexia at the end of fourth grade.

Next, frequencies were run for the total number of TAKS scores received for 2007-2008, 2008-2009, and 2009-2010. The results showed that there were 119 dyslexic students who took the test in 2007-2008, 132 in 2008-2009 and 176 in 2009-2010. The largest percent of dyslexic students took the test in 2009-2010 with 41.2% of the population, in 2008-2009 the population was smaller with 30.9% and lastly in 2007-2008 there were 27.9%.

The data showed that the majority of dyslexic students were male, comprising of 60% of the population. The females were less than half of the population, 40%. Therefore, the population consisted of a large amount of male dyslexic students across the three years studied.

When the researcher input the ethnicity information, each group was given an alphanumeric number. Native American was designated the number one, Pacific Islander a two, African-American a three, Hispanic a four and Caucasian a five. Once the frequencies were run, the analysis showed that the largest populations of dyslexic students in the district studied were Hispanic. The Hispanic population was 64%. The other ethnic populations, Native American, African-American and Caucasian all together comprised less than 50% of the population. The district in south central Texas did not have any dyslexic students who were Pacific Islanders at the third, fourth, or fifth grade levels during the three years studied. Therefore, the majority of dyslexic students in 2007-2008, 2008-2009, and 2009-2010 at the third, fourth and fifth grade levels on the reading portion of the Texas mandated TAKS test were Hispanic males.

The national School Lunch Program (NSLP) is a federally assisted program that provides low-cost or free lunches to students who qualify (Texas Department of Education, 2007). In the district studied, more than half of the dyslexic student population at the third, fourth and fifth grade level over three years were either on free or reduced lunch. The dyslexic students on free lunch were 12.2% and the dyslexic students on reduced lunch consisted of 52.9% of the population. The remaining 34.9% were not economically disadvantaged. Therefore, the majority of the students studied were economically disadvantaged Hispanic males.

The special education subgroup was the last special population that was studied. The researcher was not given access to any other special population information. When the researcher input the special education information into SPSS the research put a yes if the child was in special education and a no if the child was not in special education. The frequency table results showed that the majority of students were not special education, 90% and less than 10% were in special education.

Conclusions from the analysis of the demographics data include the following; the sample studied comprised of a majority of third, and fourth grade dyslexic students who took the reading portion of the TAKS test in 2007-2008, 2008-2009, and 2009-2010. Only 25% of the population was fifth grade dyslexic students, which could be due to the student having exited the dyslexia program at the end of their fourth grade school year. The researcher also concluded that the majority of the population was also Hispanic males who were economically disadvantaged and not in special education.

Having researched descriptive data, the next step in the study was to individually focus on each of the three research questions. The researcher then transferred the data into SPSS and inserted two categories with regard to the actual TAKS scores. One category was designated for dyslexic students who met the state standard and the other for the students who exceeded the met standard and received commended performance. The columns were then sorted by year. All of the scores for 2007-2008 were grouped together as well as 2008-2009 and 2009-2010. For the school years 2007-2008 and 2008-2009, the score of 2100 and above meant that the student had met the state standard. A score of 2400 and above meant that the student had exceeded the state standard and had received commended performance. In 2009, the scores changed. Previously the scores were based on a horizontal scale of four digit alphanumeric numbers, but in 2009, the state changed the scaled scores to a vertical score. The change in scoring did not reflect a change in the actual test. Therefore, after 2009 at the third grade level a score of 483 and above meant that the student met the state standard and a score of 659 and above meant the student had received a commended performance. At the fourth grade level, a score of 554 and above meant the student met the state standard and a score of 725 and above meant commended performance was received. Lastly, at the fifth grade level a score of 620 and above meant that the student met the state standard and a score of 763 and above meant that the student had received commended performance. Once the set was complete, a chi-square analysis was used to evaluate whether a statistical relationship existed between the two variables. The chi-square analysis was run for each of the sets of questions using each of the third, fourth, and fifth grade dyslexic child's reading TAKS scores.

According to the cross-tabulation results at the third grade level in 2007-2008, the majority of dyslexic students, 27 met the state standard, nine students received commended performance and two dyslexic students did not meet the state standard. Therefore, the majority of third grade students in 2007-2008 met or exceeded the state standard. In the 2008-2009 school year, the results showed that again the majority of students, 34, met the state standard, eight students received commended performance and there were not any dyslexic students who did not meet the state standard. Therefore, the entire dyslexic student population in 2008-2009 met the state standard. In 2009-2010, the majority of students, 104, met the state standard while five students did not meet the standard and 26 dyslexic students received commended performance. Therefore, across the three years studied, the majority of students either met or exceeded the state standard and less than 1% of the total dyslexic population at the third grade level failed to meet the state standard.

A two-way contingency table analysis was conducted to evaluate the success rate of dyslexic students at the third grade level in 2007-2008, as compared to 2008-2009, as compared to 2009-2010 based on the reading portion of the Texas mandated TAKS test. The two variables were the TAKS scores of the dyslexic students for the years studied (2007-2008, 2008-2009, 2009-2010) and whether the dyslexic students did not meet the state standard, met the state standard or received commended performance. The variables were found to not be significantly related, Pearson $X^2(4, N = 135) = 3.16, p = .532$. The proportions of students in each year studied were .3, .3, and .4 respectively. The p value was greater than the alpha level of 0.05. Therefore, it was inferred that the variables in the population from which these samples were drawn were not dynamically related to each other. Statistical independence existed. Therefore, dyslexic students across the three years performed proportionately identically at the third grade level.

According to the cross-tabulation results at the fourth grade level in 2007-2008, 29 met the state standard, five students received commended performance and twenty-one dyslexic students did not meet the state standard. In this year, the dyslexic students who did not meet standard as compared to those who met standard were close in numbers with a small percentage having received commended performance. In the 2008-2009 school year, the results showed that 31 dyslexic students met the state standard, five students received commended performance and seventeen dyslexic students did not meet the state standard. Therefore, the majority of dyslexic student in 2008-2009 met or exceeded state standards. In 2009-2010 the majority of students, 40, met the state standard while twenty-eight students did not meet the standard and eight dyslexic students received commended performance. Therefore, across the three years studied, the majority of students either met or exceeded the state standard and less than 1% of the total dyslexic population at the third grade level failed to meet the state standard.

A two-way contingency table analysis was conducted to evaluate the success rate of dyslexic students at the fourth grade level in 2007-2008, as compared to 2008-2009, as compared to 2009-2010 based on the reading portion of the Texas mandated TAKS test. The two variables were the TAKS scores of the dyslexic students for the years studied (2007-2008, 2008-2009, 2009-2010) and whether the dyslexic students did not meet the state standard, met the state standard or received commended performance. The variables were found to not be significantly related, Pearson $X^2(4, N = 184) = .626, p = .960$. The proportions of students in each year studied were .3, .3, and .4 respectively. The p value was greater than the alpha level of 0.05. Therefore, it was inferred that the variables in the population, from which these samples were drawn were not dynamically related to each other. Statistical independence existed. Therefore, dyslexic students across the three years performed proportionately identically at the fourth grade level.

According to the cross-tabulation results at the fifth grade level in 2007-2008, 22 met the state standard, four students received commended performance and there were not any dyslexic students who did not meet the state standard. In the 2008-2009 school year, the results showed that 31 dyslexic students met the state standard, and six students received commended performance, there were not any students who did not meet the state standard. Therefore, all of the dyslexic students in 2008-2009 met or exceeded state standards. In 2009-2010, 37 dyslexic students met the state standard and eighteen dyslexic students received commended performance. Therefore, across the three years studied, the majority of students either met or exceeded the state standard and there were not any students who did not meet the state standards.

A two-way contingency table analysis was conducted to evaluate the success rate of dyslexic students at the fifth grade level in 2007-2008, as compared to 2008-2009, as compared to 2009-2010 based on the reading portion of the Texas mandated TAKS test. The two variables were the TAKS scores of the dyslexic students for the years studied (2007-2008, 2008-2009, 2009-2010) and whether the dyslexic students did not meet the state standard, met the state standard or received commended performance. The variables were found to not be significantly related, Pearson $X^2(2, N = 108) = .626, p = .076$. The proportions of students in each year studied were .2, .3, and .4 respectively. The p value was greater than the alpha level of 0.05. Therefore, it was inferred that the variables in the population, from which these samples were drawn were not dynamically related to each other. Statistical independence existed. Therefore, dyslexic students across the three years performed proportionately identically at the fifth grade level.

Third, fourth and fifth grade dyslexic students in the years 2007-2008, as compared to 2008-2009, and as compared to 2009-2010 performed proportionately identical in the district studied. More than the majority of the student's were meeting state standards; the only grade that had more than five students who did not meet the state standard was fourth grade. Both third and fifth grade had less than five students who did not meet the state standard. Therefore, the district dyslexia program seems to be working for the dyslexic students at the third, fourth and fifth grade levels.

Discussion

The area of significance in this study dealt with whether or not there was a significant difference in the success rates of dyslexic students in 2007-2008, as compared to 2008-2009, as compared to 2009-2010 at the third, fourth and fifth grade levels based on the reading portion of the Texas mandated TAKS test scores. The factor for analysis in this study was the Reading TAKS scores. For the school years 2007-2008 and 2008-2009, the score of 2100 and above meant that the student had met the state standard. A score of 2400 and above meant that the student had exceeded the state standard and had received commended performance. In 2009, the scores changed, previously the scores were based on a horizontal scale of four digit alphanumeric numbers but in 2009, the state changed the scaled scores to a vertical score. The change in scoring did not reflect a change in the actual test. Therefore, after 2009 at the third grade level a score of 483 and above meant that the student met the state standard and a score of 659 and above meant the student had received a commended performance. At the fourth grade level a score of 554 and above meant the student met the state standard and a score of 725 and above meant commended performance was received. Lastly, at the fifth grade level a score of 620 and above meant that the student met the state standard and a score of 763 and above meant that the student had received commended performance.

Dyslexic students who were participating in a regular education setting in four elementary schools and two intermediate schools in a district in south Texas were studied. In the district studied, the elementary campuses are kindergarten through third grade. Fourth and fifth grade students are housed in the intermediate campuses. With the data, descriptive statistics were computed in the form of frequencies in order to look at gender, ethnicity, economically disadvantaged, and whether or not each dyslexic student was special education or not. The results showed that over 2007-2008, 2008-2009 and 2009-2010 combined; there were 135 dyslexic third grade students, 184 dyslexic fourth grade students, and 108 dyslexic fifth grade

students who took the reading portion of the TAKS test. The frequency tables show that the majority of dyslexic students over the three years were fourth grade students, which accounted to 43% of the total. The third grade population was the next group with 32% of the population and the least amount of dyslexic students were the fifth grade population with 25%. This small percentage of fifth grader dyslexic students as compared to the other grades could be due to the fact that students could have been exited out of dyslexia at the end of fourth grade.

Once the frequencies were run, the researcher utilized a chi-square analysis in order to evaluate whether a statistical relationship existed between two variables. Through the analysis, the researcher determined that all areas of the research questions were not significant; therefore, the researcher was not able to reject the null hypotheses of no difference. The three areas were as follows: third grade ($p = 0.532$), fourth grade ($p = 0.960$), and fifth grade ($p = 0.963$). Although data analysis concluded that there was not a significant difference in the reading TAKS scores of third, fourth and fifth grade dyslexic students in the years 2007-2008, as compared to 2008-2009, as compared to 2009-2010, the results showed that the dyslexia program researched seemed to be working for the students and the students seem to be progressing.

Based on the research conducted for the study, it is clear that the original research questions do not support a significant difference in the success rates of dyslexic students in 2007-2008, as compared to 2008-2009, and as compared to 2009-2010 at the third, fourth, and fifth grade levels based on the reading portion of the Texas mandated TAKS test scores. Therefore, third, fourth and fifth grade dyslexic students in the years 2007-2008, as compared to 2008-2009, and as compared to 2009-2010 performed proportionately identically in the district studied. More than the majority of the students were meeting state standards; the only grade that had more than five students who did not meet standard was fourth grade. Both third and fifth grade had less than five who did not meet the state standard. Therefore, the district dyslexia program seems to be working for the district's dyslexic students at the third, fourth and fifth grade levels.

In this study, the district that was studied implemented the Basic Language Skills program three years ago. The Basic Language Skills program is a dyslexia program, which utilizes all learning pathways in the brain (visual, auditory, kinesthetic-tactile) simultaneously in order to enhance memory and learning. The students in this study received support through this program as well as support from their classroom teacher. Along with the dyslexia support, the dyslexic students were given testing accommodations. A testing accommodation is a change to the testing environment to assist a student with special needs so that assessment can mirror classroom instruction as much as possible without invalidating test results (Texas Education Agency, 2009).

For educators and students, the results of this study are important to gain an understanding of the district's dyslexia program as it pertains to the dyslexic child's success on the TAKS test. The study clearly shows that dyslexic students across 2007-2008, as compared to 2008-2009, and as compared to 2009-2010 performed proportionately identical. Therefore, it was inferred that the current Dyslexia program is working.

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