The Impact of the Dual Language and Transitional Bilingual Programs on the Texas Assessment of Knowledge and Skills

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Abstract

“Accountability is at the top of the American educational agenda in the U.S. at the present time” (Lessow-Hurley, 2005, p.61). The pressure that school administrators, educators and parents feel about the accountability in the education system brings a debate about the length of time it takes to learn a second language and about the most effective instructional practices that foster the academic success for these students (Ovando, et al., 2003). This research study compares and contrasts the performance data, as measured by the Texas Assessment of Knowledge and Skills (TAKS™) in math and reading, between third grade English language learners who were enrolled in Transitional Bilingual Programs and those enrolled in the Dual Language Bilingual Program for at least three years. The results shows that students enrolled in the Dual Language Bilingual Program perform higher in math and reading TAKS™ tests scores compared with students enrolled in the Transitional Bilingual Program.

Since 1950 there have been many concerns about what students are learning and how it can be measured. These concerns and the public perception that students were illiterate brought a reform in education and also opened the door to numerous research efforts that intended to explain how the mind works, how humans learn, and how people use their intelligence to solve problems (Janesick, 2001). Around the same time, two major events took place. First, the United States’ politicians started to compare U.S. schools with schools from Japan, Korea and China. They particularly focused on test scores and argued that U.S. teachers, schools, and students were behind in academic achievement compared with the rest of the world. These arguments provoked a necessity to create assessment tests that could prove the contrary (Janesick, 2001). Second, the “dominion belief amongst academics was that bilingualism had a detrimental effect on thinking” (Baker, 2001).

These two issues, and the No Child Left Behind (NCLB) Act of 2001 brought more pressure to educators who needed to ensure that all second language learners made adequate progress in all areas in the state wide assessment, over a specified time period (Lessow-Hurley, 2005). There has been a huge controversy regarding the effectiveness of bilingual education on students’ cognitive development and academic performance. Educators, politicians, and the community in general question the positive or negative
influence that bilingual education programs will bring to the students' academic progress. There have been numerous studies conducted that reveal how bilingual education, when well implemented, can improve students' cognitive development and academic skills (Alanis, 2000). One of the most recent longitudinal studies conducted by Thomas and Collier reflects that students who stay in a Dual Language Bilingual Program for more than four years have a higher academic achievement compared with students who stay in short-term or remedial bilingual programs (Thomas & Collier, 2001).

The Transitional Bilingual Program is considered as a remediation or subtractive bilingual program. “The goal of this program is to develop a student’s proficiency in English....Students are expected to move out of a transitional program....after a period of approximately three years” (Lessow-Hurley, 2005, p.12). The time frame, that bilingual programs have for students to acquire English language, creates a misconception among parents and teachers who assume that it takes a short time to acquire a second language (Ovando, et al, 2003).

The Enrichment Bilingual Program, such as Dual Language Bilingual Programs or Two-Way Bilingual Programs’ goal is to provide full bilingual and biliteracy proficiency in two languages for language minority and majority students (Ovando, et al., 2003).

Thomas and Collier (2001) also state that language learners who enroll in Dual Language Programs achieve a greater academic level compared with the ones who attend other types of bilingual programs. Although the number of schools offering Dual Language Programs in Texas has increased from 27 schools in 2002 to 48 schools in 2004 (Center for Applied Linguistic, Directory, 2000), the majority of elementary schools in the state of Texas have chosen to implement the remedial or subtractive Transitional Bilingual Program over enrichment or additive Dual Language Bilingual Programs. Even though researchers show that students who have substantial instruction in their primary language for at least 4 years perform higher in the content areas of the assessment test in contrast with students who are moved quickly into English only instruction (Alanis, 2000; Ramírez, Yuen & Ramey, 199; Thomas & Collier, 2001).

**Purpose of the Study**

The primary purpose of this study was to compare and contrast math and reading performance data on the Texas Assessment of Knowledge and Skills (TAKS™) between third grade English language learners who were enrolled in Transitional Bilingual Programs and those enrolled in the Dual Language Bilingual Program for at least three years.

This study also conducted an additional analysis to evaluate students’ performance in the reading and math on TAKS™ regarding English proficiency at the start of the Transitional or Dual Language Bilingual Program. Students’ level of English proficiency was classified according of students’ IDEA Oral Proficiency Test (IPT) scores.

The students who participated in this study were enrolled in five pre-kindergarten through fifth grade public elementary schools located in a large urban school district in the southwestern Texas. Three of these elementary schools offer the Transitional Bilingual Program and the other two offer the Dual Language Bilingual Program.

**Review of Literature**

Over the past decades testing has become a major tool in the educational and policy arena both at the local and national levels. During his presidential campaign of 2000,
George W. Bush mentioned the need for an educational reform where all children would have access to higher education and one of the tools to achieve this goal was to establish higher academic tests. He also stated that “... without testing the education reform is a journey without a compass, teachers and administrators cannot change their methods to meet high goals, standards are little more than scraps of paper and parents are left in the dark” (cited by Hillocks, 2002, p. 10-11).

The No Child Left Behind Act of 2001 was signed into law by President George W. Bush on January 8, 2002, and it requires all students to be included in the accountability of the school (Lessow-Hurley, 2005). Although, The No Child Left Behind Act intends to upgrade the achievement levels for all the students, it also brings concerns among administrators, teachers and parents of English Language Learners. These concerns revolve around the impact that bilingual programs have on students’ academic achievement, their performance on the state mandated assessment test (TAKS™) and how to create appropriate strategies and curriculums that may help all students to pass the Texas Assessment of Knowledge and Skills (P. Pope & M. Flores, personal communication, Nov. 11, 2002). Their primary concern is due to the misconception about the negative impact that Early Exit Bilingual programs have on English language learners and their performance on academic assessments (Thomas & Collier, 2001).

In the past, there has been a great deal of pressure on teachers and administrators to acquire satisfactory scores on achievement tests. However, today greater emphasis on teacher measurements and evaluation accountability makes teaching to the test more likely to occur. The Texas Education Agency (2002) claims also that “One of the major concerns about the standardized achievement test is that when test scores are used to make important decisions, teachers may teach to the test too directly.”

The Texas Assessment of Knowledge and Skills (TAKS™) test is designed to obtain data that reflects students’ academic performance and to present data that shows public school districts’ academic progress (Texas Education Agency, 2002). Schools with students who do not perform well on the Texas Assessment of Knowledge and Skills test are to be subjected to corrective action such as: replacement of school staff, implementation of a new curriculum, or appointed outside experts to advise the school. The threat of corrective actions creates enormous pressure on administrators and teachers for their students to perform well on the TAKS™ test. Because of this pressure, many teachers direct their teaching to test preparation in the effort to facilitate higher student assessments’ scores (Janesick, 2001; Feldman, 2000) rather than toward learning goals. McNeil conducted a study in 2000 about Texas’ test assessment; she concluded that schools in Texas spent a large amount of time practicing for the test (cited in Janesisk, 2001). Ovando, et al. (2003) states “Teachers feel daily pressure to cover the content of these test, often at the cost of more meaningful and substantive learning material” (p.325). On the other hand, students also have the pressure to pass the TAKS™ test because this test will determine if they will be promoted to the next grade level, and whether they will receive a high-school diploma.

Transitional Bilingual as the Dual Language Bilingual Program has the same goal, “the acquisition of English language skills so that English language learners can succeed in an English only mainstream classroom” (Lessow-Hurley, 2005, p.25). Lessow-Hurley also
claims that the difference between these two bilingual programs consist in the amount of time that native language is used for instructional purposes, and the support or development of students’ primary language.

The Transitional Bilingual Program’s aim is to move children into English-only instruction within two or three years. The purpose of these programs is to move students to an all-English instruction classroom as soon as possible without maintaining or developing students’ native language (Ovando, et al., 2003). Parents, educators, and politicians who support the Transitional Bilingual Programs assume that students’ first language will interfere in the acquisition of the second language. According to Cummins (1983), this assumption is based in the Separate Underlying Proficiency Model. This model suggests that the two languages operate separately and with a restricted amount of room in the brain for each language. Based on this model, opponents to bilingual education have the conception that if students’ native language is developed, the space for the second language will be limited and the students will never acquire efficiency in the second language.

On the other hand, the Dual Language Bilingual Program is a model where half of the students in the class are minority language students, and the other half are majority language students. This program offers academic instruction in both languages for the language minority and majority students (Lindholm-Leary, 2001).

There are a variety of terms used to describe the Dual Language Bilingual Programs such as: Two Way Immersion, Two-Way Bilingual Education, Enrichment Programs, Bilingual Immersion, Double Immersion, Dual Language Education etc. (Baker, 2001). Regardless of the term that is used, this program supports and promotes students' native language while facilitating the learning of a second language. Jong (2002) mentions different designs of Dual Language Programs such as 90/10 and 50/50. The classification of these programs depends upon the amount of time that the second language is used for instruction. For instance, the 90/10 bilingual model program provides 90 percent of instruction in students’ native language and 10 percent in the second language. The 50/50 program provides 50 percent of instruction in students’ native language and 50 percent in the second language. Dual Language Programs aim to enable children to achieve a higher level of proficiency in both languages within 6 to 7 years (Baker, 2001; Lindholm-Leary, 2000, 2001).

Cummins (1983) states The Dual Language Program bases its approach on the Iceberg Analogy or the Common Underlying Proficiency Model. He also mentions that this model represents how the languages are interconnected, and even though there is a visible difference in conversation, both languages operate through the same central processing system.

In 1968, President Lyndon Johnson signed the Bilingual Educational Act that provides financial assistance to local elementary or secondary educational agencies to meet the special education need of limited English speaker. The Bilingual Educational Act opened the door to bilingual education, and during the 1970's, Dual Language Education Programs were formed in three other school districts: Washington, DC, San Diego, California and Chicago, Illinois (Lesso-Hurley, 2005; Lindholm-Leary, 2001).

In spite of the Bilingual Education Act, many citizens, legislators, and politicians from different states are opposed to Dual Language Programs and some states no longer
support bilingual education. For instance, in 1987 California eliminated its mandate for bilingual education, and in 1998 votes approved Proposition 227 that rejected bilingual education programs in California public schools (Genzuk, 1998).

Ovando, et al. (2003) conclude that one powerful organization entitled “English Only” has been established to oppose Bilingual Education Programs. This organization is one of the most powerful opponents of bilingual education programs, and advocates for the “sink-or-swim or structural immersion program.” The sink or swim program provides instruction only in English and its goal is to teach English to non-English language speaking students for a period of a year. Supporters of the “English Only” organization have not realized the implications that Preposition 227 will restrict foreign language instruction for all California students including native English speakers (Baker, 2001; Lindholm-Leary, 2001).

Petrovic and Olmstead (2001) maintain that critics and opponents of bilingual education programs claim these programs have a negative influence on students’ academic achievement. For instance, the dominant belief among people, from the early 19th century until approximately the 1960’s, was that bilingualism had detrimental effects on the thinking process and academic achievement and does not have any benefit for the students. Further, they claim bilingualism will lead to social and economic division within society.

Ramírez, Yuen and Ramey (1991) performed a longitudinal study comparing different bilingual programs (transitional and late exit bilingual program). The results suggested that students in Late Exit Bilingual Programs performed higher in math, reading and language skills compare with students enrolled in transitional programs. Villarreal (1999) points out that transitional bilingual programs, when implemented correctly, can have can have a positive affect on the academic achievement of English language learners, but one of the major limitations that this program has is the belief that English language learners come to school with a language and culture that interfere in their learning process.

Baker and Hornberger (2001) also report that recent research provides evidence that bilingualism has a positive influence on cognitive flexibility and divergent thinking. One of the assets that the Dual Language Bilingual Program provides to society is its aim for all the students to be involved regardless if they are English language learners or already have mastered the English language. The ultimate goal of the Dual Language Program is bilingualism and biliteracy for all the students (Lessow-Hurley, 2005). In 1990 Holm and Holm concluded that the incorporation of high quality bilingual education programs in the schools could promote higher levels of academic achievement and language proficiency in both languages and also increase the positive psychosocial outcomes (as cited by Lindholm-Leary 2000).

Dual Language Programs have the potential to promote the multilingual and multicultural competencies necessary for the global business job market while at the same time eradicating the achievement gap between language minority and language majority students (Lindhold-Leary, 2000). The U.S. Secretary of Education, Richard W. Riley, also highlighted the advantages that the Dual Language Bilingual Program brings to the nation in June 2000. He stated, “Knowledge is power” (“Saber es poder”) and in an international economy, knowledge of a second language is power. He assured that the people who speak English as well as another language would soon be a wonderful asset for the
nation. He also encouraged schools to adopt Dual Language Programs where children are challenged to meet high academic standards in two languages (United States Department of Education, Testing, 2002).

Numerous research studies have shown that bilingual students perform the same or better than monolingual students on tasks that call for divergent thinking, pattern recognition and problem solving. These abilities are important elements that may increase the performance on academic achievement tests such as the Texas Assessment of Knowledge and Skills (TAKS™) (Alanis, 2000; Thomas & Collier, 2001). In fact, the Alanis (2000) study indicates that the majority of the students enrolled in a Dual Language Bilingual Program performed equal to or greater on the Texas Assessment of Knowledge and Skills (TAAS), test when compared with students who participated in a monolingual regular public school program. Therefore, the Dual language Bilingual Program may help teachers and students with the pressure that TAKS™ test brings to the classrooms.

Method

Because the purpose of this study was comparative in nature and had a small population, it was difficult to use a random selection. The data was collected from the reading and math Texas Assessment of Knowledge and Skills (TAKS™) from the 2003-2004 school year of students enrolled in five public elementary schools with the highest number of English Language Learners. These public elementary schools are located in a large urban school district in the southwestern section of Texas. Three of the five public elementary schools offer the Transitional Bilingual Program and the other two public elementary schools offer the Dual Language Bilingual Programs. The students who participated in this study were enrolled, at least for three years, in the same elementary school.

Participants

This research study included 89 students who are enrolled in two different bilingual programs. One group of students (a total of 31) was enrolled in three schools that offer the Transitional Bilingual Program. The second group of students (total of 58) was enrolled in two schools that offer the Dual Language Bilingual Program. There were 14 female and 17 male students enrolled in the Transitional Bilingual Program. There were 29 female and 29 male students enrolled in the Dual Language Bilingual Program.

Results

This study used the Analysis of Variance (ANOVA) to analyze data collected from the reading and math TAKS™ scores of 58 third grade students enrolled in the Dual Language Bilingual Program compared with 31 third grade students enrolled in the Transitional Bilingual Program. The Analysis of Variance shows no statistically significant difference in the reading TAKS™ scores F (1,87) = 3.22  p' .07 between students enrolled, for at least three consecutive years, in the Dual Language Program compared with students enrolled, for at least three consecutive years, in the Transitional Bilingual Program.

Likewise, there were no statistically significant differences in math TAKS™ scores F (1,87) = 1.16  p’ .29 between students enrolled, for at least three consecutive years, in the Dual Language Program compared with students enrolled, for at least three consecutive years, in the Transitional Bilingual Program.
Though no statistically significant differences were found in the reading and math TAKS™ test scores between all students in the Transitional Bilingual program compared with all students in the Dual Language Bilingual program, this analysis of variance does show that students enrolled for at least for three years in the Dual Language Bilingual Program performed slightly better on the Texas Assessment of Knowledge and Skills (reading and math) when compared with students enrolled for at least for three years in the Transitional Bilingual Program. The same results are found in the gender analysis. Female students enrolled in the Dual Language Bilingual Program performed slightly better in the reading and math TAKS™ test compared with the female students enrolled in the Transitional Bilingual Program. Likewise, the results show that male students enrolled in the Dual Language Bilingual Program performed slightly better in the reading and math TAKS™ test compared with the male students enrolled in the Transitional Bilingual Program as the following figure shows.

In this study the data analyzed was obtained from the reading and math TAKS™ test scores suggests that there is not a statistically significant difference between third grade students enrolled in the Transitional Bilingual Program compared with the third grade students enrolled in the Dual Language Bilingual Program. Although no statistically significant difference was found, it is important to note that the analysis shows that the third grade students enrolled in the Dual Language Bilingual Program obtained higher scores in the reading and math TAKS™ tests compared with third grade students enrolled in the Transitional Bilingual Program as the following figure shows.

Mean comparison of the reading and math TAKS™ scores between female and male students in the Transitional and Dual Language Bilingual Programs for a period of three years.
Discussion

Due to the increased number of English language learners enrolled in Texas schools and the accountability its educational system is facing, this study shows that the Dual Language Bilingual Program may be a more effective approach to promote higher academic achievement on standardized tests.

Several results of this research project should be addressed. First, contrary to what many opponents of the Dual Language Bilingual Program think this program does not negatively affect students’ academic performance. In fact, students’ academic progress was equal or even slightly better than students in the Transitional Bilingual Programs (Ramírez, 1991; Thomas & Collier, 2001). Moreover, it is recommended that students enrolled in the Dual Language Bilingual Program stay in this program at least five to six years in order to obtain a clear and measurable result (Cummins, 1983). Therefore, in future research studies it will be of critical value to determine how the participants of this study are going to perform on standardized tests in upcoming grade levels.

Pérez & Torres-Guzmán (2002) claim that the role of bilingual educational programs is to help students to develop pride in who they are as well as to improve their academic skills and critical thinking. However, English language learners will have difficulty developing pride in themselves when “in United States classrooms, linguistic diversity has commonly been viewed as a temporary, if troublesome, barrier to learning” (Nieto, 2000, p.191).

As parents and educators we need to be aware of schools that offer the Transition Bilingual Program because, according to research, it is no more than a quick solution for English as a second language. This may even result in lower academic achievement or unfortunately elevated school “drop out” statistics. Of course, the Transitional Bilingual Program is better than not having a bilingual program. However, the authors wonder if there is any strong evidence that these bilingual programs are still offered to our students when “knowing two languages well and being biliterate opens doors to the technological world that is advancing more rapidly then we can keep up?” (Espino & Minava, 2003).

Recommendations

It is extremely important that all schools in the nation provide educational programs that are meaningful for every student. The Dual Language Bilingual Program intends to address the needs for second language learners, and to close the academic gap that exists between the minority and majority students. Unfortunately, in spite of numerous research studies results that show the academic and social benefits that the Dual Language Bilingual Program brings to the minority or majority students (Alanis, 2000; Kirk, 2002; Ramírez, et al., 1991; Thomas & Collier, 2001), the Transitional Bilingual Program is the most implemented in public schools throughout the nation.

The authors hope for bilingual programs that promote bilingualism, biliteracy, and grade level academic achievement is still alive. Currently there is a bill (SB.78) that Senator Shapleigh developed. This bill addresses the importance and the benefits that the Two Way Bilingual Program has on all the students, and establishes a Two-Way Developmental Bilingual Education Pilot Project in five schools districts with higher percentage of English learner students.
This bill can be the opportunity for all students to become bilingual and bilateral, but still it is urgent that school administrators, educators, and parents give their support to the Dual Language Bilingual Program in order to be implemented in all school districts.

Being bilingual and biliterate individuals provide to our society further employment opportunities, cognitive flexibility and the opportunity to learn about a new worldview (Pang, 2001).

It is recommended that future research studies conduct a longitudinal study of English language learners enrolled in different bilingual programs, and their performance on standardized tests compared with the monolingual learners' test.

Another beneficial research project would be to determine if there is a difference in the performance on standardized tests between the Enrichment Bilingual Program and the Dual Language Bilingual Program. An additional, future research project should also include a study to compare and contrast the development of the Spanish language on minority and minority students enrolled in the Dual Language Bilingual program at different grade levels.

It is imperative that bilingual education be appreciated as one of the main educational foundations of our future. Bilingual education must be part of our schools. The school system must have bilingual programs that improve students’ cognitive, social and academic skills, and numerous of research studies show that students in the Dual Language Bilingual Program acquire these skills. Moreover, the Dual Language Bilingual Program is not only for English language learners; it is a program that benefits both minority and majority students acquiring another language. For this reason, politicians, educators and parents who work to improve the education in our nation must consider the Dual Language Bilingual Program as the next step to improve educational programs.

Only when the Dual Language Bilingual Program is incorporated as a part of the educational system, will students of the public schools have the empowerment to broaden the possibilities for a brighter and more meaningful future.
References


