College Readiness:

Faculty Mentor/Coauthor: Marie-Anne Mundy

Marisa Chapa, Vanessa Galvan-De Leon and Judith Solis

Texas A&M University-Kingsville

ABSTRACT

The 79th Texas Legislature, Third Called Special Session, passed House Bill 1, the "Advancement of College Readiness in Curriculum" (THECB). As a response to this, early college high schools blend high school and college in a rigorous yet supportive program, compressing the time it takes to complete high school diploma and up to the first two years of college. Early college replaces remediation with acceleration. In South Texas a lack of college readiness for low-income high school students result in being unprepared for college and subsequently low college graduation rates. As a response to the THECB and the need for a higher graduation rate in college, the state of Texas implemented TSI readiness standards. This research study asked whether attending an early college high school prepared high school students to be college-ready. The purpose of this ex post facto study was to test whether Early College High School (ECHS) students as compared to the traditional high school students were more prepared for college as measured by the Reading and Math End of Course (EOC) exams while controlling for grade 8 STAAR scores. No significant difference was found between the traditional and early college high school on Math. However, there was a significant difference between the traditional and early college high school on Reading and the type of school accounted for 44% of the variance in Reading. This is considered a large effect size.

Introduction

Recognizing the importance of a world-class education, the 79th Texas Legislature, Third Called Special Session, passed House Bill 1, the "Advancement of College Readiness in Curriculum" (THECB). The growth of early college high schools has risen since House Bill 1 was adopted. Early college is a design for high schools that is based on the principle of academic rigor, combined with the opportunity to save time and money. Early college high schools blend high school and college in a rigorous yet supportive program, compressing the time it takes to complete high school diploma and up to the first two years of college (Jobs for the Future, 2012). Early college replaces remediation with acceleration. "Students attending Texas public institutions of higher education must be in compliance with the Texas Success Initiative (TSI), as of Fall 2003 (Texas Education Code 51.3062) in order to enroll in public institutions of higher education" (THEC).

Statement of the Problem

There is a national necessity for students to be prepared for college. "Over 93 million adults lack the basic literacy skills necessary to be successful and advance in college and in the workplace" (Jobs for the Future, 2012). Closing the learning gap is an issue that continues to plague the educational system. In South Texas, there is a problem with a lack of college readiness for low-income high school students. Currently, students graduate high school and are not prepared for the rigor of college. There exists a problem in our educational system in preparing students for post-secondary studies. Too many students are entering postsecondary school having to take developmental courses. Spurred by this need, the state of Texas has implemented TSI readiness standards.

Purpose

The purpose of this ex post facto study was to test whether Early College High School (ECHS) students as compared to the traditional high school students were more prepared for college as measured by the Reading and Math End of Course (EOC) exams while controlling for grade 8 STAAR scores.

The research question that directed this study was, "Does attending an early college high school prepare high school students to be college ready?" The hypothesis that was tested was: There is a significant difference between early college high school students and traditional high school students on college readiness as measured by the Reading and Math End of Course (EOC) exams while controlling for grade 8 STAAR Reading and Math scores.

Review of Literature

College readiness is fundamentally different from high school completion because college is different from high school (Conley). "The high school graduation rate in the United States is about 70%. Only about one third of U.S. high school students graduate college ready. 40% of all students entering college must take remedial courses" (Texas Tribute, 2012). The pressure to improve instruction in schools may be greater today than at any other time in the history of American education. The No Child Left Behind (NCLB) legislation has turned the nation's attention to the way teachers teach and students learn, therefore, schools are searching for proven ways to improve students' scores and achieve Annual Yearly Progress (AYP) (Knight, 2007).

The 79th Texas Legislature, Third Called Special Session, passed House Bill 1, the "Advancement of College Readiness in Curriculum." Section 28.008 of the Texas Education Code, seeks to increase the number of students who are college and career ready when they

graduate high school (THECB). The legislation required the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) to establish Vertical Teams to develop College and Career Readiness Standards (CCRS) in the areas of English/language arts, mathematics, science, and social studies (THECB). These standards specify what students must know and be able to do to succeed in entry-level courses at postsecondary institutions in Texas. In 2006, Texas became the first state to mandate the development and use of the college readiness standards. The standards were an effort to create the P-16 continuum and it marked the first formal partnership between the TEA and THECB (THECB).

Furthermore, the growth of early college high schools has risen since House Bill 1 was adopted. Early college is a design for high schools that is based on the principle of academic rigor, combined with the opportunity to save time and money. Early college high schools blend high school and college in a rigorous yet supportive program, compressing the time it takes to complete high school diploma and up to the first two years of college (Jobs for the Future, 2012). Early college replaces remediation with acceleration. It includes a powerful teacher effectiveness program that supports teachers to utilize college-ready instructional strategies (Jobs for the Future, 2012).

The Early College High School (ECHS) program sought to increase high school completion rates and encourage college enrollment among students traditionally underrepresented in the college-going population. The program does so by providing the students with the opportunity to simultaneously attain a high school diploma and college credit hours up to and including a 60-credit associate's degree during a four- or five-year high school program. To offer college credit, ECHS had to partner with local institutions of higher education (IHE) and establish a joint agreement that specified both the courses that were eligible for dual credit

and the respective responsibilities of the high school and IHE partners (TEA, 2011). The primary experience for ECHS was taking college-level courses in high school through dual enrollment. ECHS also developed a college-going culture and developed partnerships with IHE. The IHE and ECHS relationship was not deeply collaborative so instructors and teachers did not collaborate on curriculum and strategies for supporting students (TEA, 2011). To raise the level of consistency in instruction across teachers, the ECHS network provided technical assistance on implementing the model and professional development on key instructional strategies called the Common Instructional Framework (TEA, 2011). To prepare all students for college readiness, teachers must prepare all students for success regardless of current knowledge or instructional level.

Methodology

This quantitative ex post facto study utilized a pre-experimental Alternative Treatment Post-Test-Only with Nonequivalent Groups Design (Creswell, 2014). The two treatments include Early College High School (ECHS) students and the Traditional High School students. These two treatments were compared on college readiness as measured by the Reading and Math End of Course (EOC) exams. These EOC exams reflect the Texas Success Initiative (TSI) readiness standards. An alpha level of .05 was selected.

The public high school that was utilized is located in South Texas near the United States-Mexico border. The total enrollment of the school is about 2,000 students. Of these, the participants selected for this study included 289 students in grade 10. The high school serves mainly Hispanic students and is 99% Hispanic and 1% Non Hispanic. The demographics show a low SES with 91.7% Free and Reduced Lunch.

Historically, the Texas Assessment of Knowledge and Skills (TAKS) was a standardized test the state of Texas utilized in both the elementary schools, grades 3-8 and the secondary schools, grades 9-11 to assess students' understanding of reading, writing, math, science, and social studies skills. From 2012 forward, there has been a test phase out due to replacement of the TAKS by the STARR test and Texas Senate Bill 1031. The grade 8 STARR test was the instrument used as the controlling variable. The reading, math, science and social studies tests (before grade 9) consist of multiple-choice questions scored by computer. On each assessment, a scaled score of 2100 is needed to pass and 2400 is required to earn a "commended" status (TEA). The Reading and Math End of Course (EOC) exams were the tests chosen for the grade nine students in the ECHS and Traditional streams.

> The purpose of the end-of-course (EOC) assessments is to measure students' academic performance in core high school courses and to become part of the graduation requirements beginning with the freshman class of 2011–2012. The EOC assessments for lower-level courses must include questions to determine readiness for advanced coursework. The assessments for higher-level courses must include a series of special purpose questions to measure college readiness and the need for developmental coursework in higher education (TEA, nd).

Findings

Two different ANCOVAs were conducted to determine if there was a significant difference between a traditional high school and an early college high school on college readiness as measured by the Reading and Math End of Course (EOC) exams while controlling for the 8th grade STAAR scores. The independent variables were the Reading and Math EOC exams. The covariant factor was the 8th grade STAAR test. The fixed factor was traditional high

school and an early college high school. Looking at Math, there was homogeneity of regression slopes as the interaction term was not statistically significant, $F(1,284) = 2.55$, $p = .11$. There was no significant difference between the traditional and early college high school on Math, $F(1,285) = 2.07$, $p = .15$, partial $\eta^2 = .007$. In the Reading, there was no homogeneity of regression slopes as the interaction term was statistically significant, $F(1,284)=6.04$, $p = .01$, partial $\eta^2 = .02$. Based on lack of homogeneity of slopes, simple main effects tests were conducted that allow for heterogeneity of slopes. There was a significant difference between the traditional and early college high school on Reading, $F(1,285) = 112.07$, $p < .001$, partial $\eta^2 = .44$. A partial η^2 of .44 means that type of school accounts for 44% of the variance in Reading. This is considered a large effect size.

Recommendations

It is recommended that students participate in an early college high school especially in the reading area. It appears that participating in the early college high school will support students scoring higher in reading on the state standardized test. According to TSI, students should be prepared for college if they pass the state standardized tests. Further work will need to be completed to discover what will positively affect the math scores.

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