

## College readiness

Marisa Chapa  
Texas A&M University-Kingsville

Vanessa Galvan-De Leon  
Texas A&M University-Kingsville

Judith Solis  
Texas A&M University-Kingsville

Marie-Anne Mundy  
Texas A&M University-Kingsville

### ABSTRACT

During the 79<sup>th</sup> Texas Legislature, the bill “Advancement of College Readiness in Curriculum” was passed (THECB). As a response to this, high schools and colleges have combined forming an early college high school. The result of this union was a program that condensed the time it took to complete both the high school diploma and up to two years of college during the high school years, yet retaining its rigor. Early college high school replaces remediation with acceleration. In South Texas a lack of college readiness for low-income high school students has resulted 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 were more prepared for college than the traditional high school students 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.

Keywords: Early College High Schools, Texas Success Initiative, House Bill 1, college readiness, Hispanic. ANCOVA

Copyright statement: Authors retain the copyright to the manuscripts published in AABRI journals. Please see the AABRI Copyright Policy at <http://www.aabri.com/copyright.html>.

## **INTRODUCTION**

The growth of early college high schools has risen since House Bill 1, “Advancement of College Readiness in Curriculum” 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. As a response to this, high schools and colleges have collaborated forming an early college high school. The result of this union was a program that condensed the time it took to complete both the high school diploma and up to two years of college during the high school years, yet retaining its rigor. (Jobs for the Future, 2012). Early college replaces remediation with acceleration. However, students must first pass the TSI: “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 has continued to plague the educational system. In South Texas, there is a problem with a lack of college readiness for low-income high school students as our educational system are not preparing students for post-secondary studies. Currently, students graduate high school and are not prepared for the rigor of college and have 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, 2007). “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).

A bill, the "Advancement of College Readiness in Curriculum," was passed during the 79th Texas Legislature. The purpose of this bill was to add to the number of high school graduates who are college and career ready. To accomplish this, in 2006, both the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) developed College and Career Readiness Standards (CCRS) in the areas of English/language arts, mathematics, science, and social studies utilizing vertical teams, the first state to do so. These standards comprise of the knowledge and skills students need to successfully complete entry level courses at college in Texas. The Bill resulted in the creation of a P-16 standards' continuum and the institution of the first formal partnership between TEA and THECB (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. ECHS 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).

This 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 provides 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, the 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 the ECHS was taking college-level courses in high school through dual enrollment.

The ECHS developed a college-going culture in developing partnerships with an 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 the Early College High School (ECHS) students and the Traditional High School students at one school. 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), a standardized test, was 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 State of Texas Assessments of Academic Readiness (STAAR). The grade 8 STAAR test utilizing scaled scores was the instrument used as the controlling variable and included the content areas of reading, math, science and social studies. This test consisted of multiple-choice questions scored by computer with a required passing score of 2100 and a "commended" score of 2400 (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 8<sup>th</sup> grade STAAR scores. The independent variables were the traditional high school and early college high school. The dependent variables were the Reading and Math EOC exams. The covariant factor was the 8<sup>th</sup> grade STAAR test. In Math, homogeneity of regression slopes was found 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  $\eta^2 = .007$ . The effect size was minimal. 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  $\eta^2$  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 the reading area at an early college high school. 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 research will need to be completed to discover what will positively affect the math scores.

## REFERENCES

- Conley, D. T., (2007). *Rethinking College Readiness* (Volume 3). Eugene, OR: Educational Policy Improvement Center.
- Creswell, J.W. (2014). *Research Design: Qualitative, quantitative, and mixed methods approaches*, Fourth Edition. Thousand Oaks, CA: Sage Publications, Inc.
- Enberg, M. E. & Wolniak, G.C., (2010). *Access to postsecondary education: The interrelationships among high school contexts and socioeconomic status* (Air Award No. RG10-144). Retrieved from Association for Institutional Research website: <http://www.airweb.org>
- Le, C. & Frankfort, J. (March 2011). *Accelerating College Readiness: Lessons from North Carolinas's Innovator Early Colleges*. (Jobs for the Future). Retrieved from <http://www.jff.org/publications/education/accelerating-college-readiness-lessons-n/1200>
- Jobs for the Future. (2011). *Accelerating College Readiness: Lessons from North Carolinas's Innovator Early Colleges*. (March). Boston, MA: Le, C., and Frankfort, J.
- Jobs for the Future. (2012). Retrieved from <http://www.jff.org>
- Knight, J. (2007). *Instructional coaching: A partnership approach to improving instruction*. Thousand Oaks, CA: Corwin Press.
- Texas Education Agency, SIR International Center for Education Policy. (2011). Evaluation of the Texas High School Project (Third Comprehensive Annual Report). Retrieved from <http://www.tea.state.tx.us>
- Texas Education Agency (nd). End-of-Course (EOC) Assessments. Retrieved from <http://www.tea.state.tx.us>
- Texas Higher Education Coordinating Board (THECB). Retrieved from <http://www.thecb.state.tx.us/collegereadiness/crs.pdf>
- Texas Tribune. (August 7, 2012). Retrieved from <http://www.texastribune.org>