

CSCOPE and Impact on Student Achievement

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ABSTRACT

Curriculum models number many in the world of education. One particular curriculum SCOPE, a comprehensive web based curriculum management program, implemented in Texas schools, has drawn the interest of various educators throughout the state. The purpose of this paper was to carry out a quasi-experimental study to test that the CSCOPE curriculum will improve math TAKS scores for eleventh grade students in a south central Texas urban school district. This paper reviewed three studies in particular pertaining to CSCOPE and its effects on improving math TAKS scores of eleventh grade students in south central Texas urban school districts. The independent variable(s) were the curriculum used by the districts. The dependent variable(s) are the TAKS math scores. The results were mixed. Ultimately, the studies should expand by further disaggregating commended performance, college career and readiness, dig deeper into the subpopulations and subjects of English and Spanish language arts, and social studies.

Keywords: Curriculum, CSCOPE, Student Academic Success

Introduction

Since the publication of a *Nation at Risk* and the implementation of *No Child Left Behind* (NCLB) and *Race to the Top*, public schools have been charged with improving their schools and student academic performance. NCLBs requirements were based mainly on Texas' educational accountability system because of this state's educational gains, it provided a model for the nation (Haney, 2000; Reyes, 2008; Watt, Powell, Mendiola, & Cossio, 2006; White, (n.d.)). With the implementation of the Texas Assessment of Knowledge and Skills (TAKS) accountability system in 2003 (TEA, 2008), using a prescribed curriculum has expanded considerably (CSCOPE, 2012). The pressure for school districts to perform well on the states' tests has increased substantially and has become the driving force for most school leaders (Brown, Jones & Scheunermann, 2012). The accountability has increased again for students who will graduate after the year 2014 must pass all grade level end of course (EOC) exams of state of Texas assessments of academic readiness (STAAR) (TEA, 2011). Many districts have turned to CSCOPE, a researched-based customizable and comprehensive curriculum model, as a remedy, with the first year of implementation the 2006-2007 school year. Developed by the Texas Education Service Center Curriculum collaborative (TESCCC), a consortium comprised of the nineteen out of twenty education resource centers in Texas, CSCOPE is a comprehensive online curriculum management system. It includes a curriculum K-12 framework in all foundational academic subject areas aligned to the Texas Essential Knowledge and Skills and is regularly updated. All content is delivered in a web-based format so each district can customize the content based on their needs (CSCOPE, 2012).

In response to the impact of the high stakes accountability on school districts in Texas, educators have been forced to focus their resources on preparing for state and national assessments (Brown, Jones & Scheunermann, 2012). Since the NCLB went into effect in 2001 (NCLB, 2002) and the increasing accountability initiatives of the Texas Assessment of Knowledge and Skills (TEA, 2008), the need and demand for a standards-based curriculum model emerged and this trend is likely to continue (Herman, 2009). In the report from the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) Herman (2009) predicted that a shift will occur

from state standards to national standards within the next generation; in fact, forty-eight states are already in agreement (Zeher, 2009). To support this push for national standards, the Common Core State Standards Initiative (CCSSI) has been allocated three hundred and fifty million dollars of federal funds including the American Recovery and Reinvestment Act of 2009 and the Race to the Top Fund (ARRA, 2009; Herman, 2009; Massell, 2008; United States Department of Education, 2010).

Statement of the Problem

In Texas as of February 1, 2012, 820 school districts out of 1248, or 66%, have purchased and implemented CSCOPE and since the first year of implementation, 2006-2007, this curriculum model had become widespread for grades K- 12 in social studies, mathematics, science, language arts and Spanish language arts (CSCOPE, 2012). Notwithstanding all of the significant research regarding the correlation between an aligned and viable curriculum to student success (Cawelti, 1995; Eisner, 1982; English & Steffy, 2001; Marzano, 2003; Marzano & Kendall, 1996), there remains an insufficient amount of research on how the standardized test scores in the state of Texas are impacted by specific curriculum models.

Purpose of the Study

The purpose of this quasi-experiment study was to test that the CSCOPE curriculum will improve math TAKS scores for eleventh grade students in a south central Texas urban school district. The independent variable(s) were the curriculum used by the districts. The dependent variable(s) were the TAKS math scores.

Research Question

What effect did CSCOPE have on student mathematics TAKS scores?

Research Hypotheses

Null: (H_0) There will be no statistically significant difference on math TAKS scores of the eleventh grade students after the implementation of CSCOPE.

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Conceptual Framework

The framework reviewed CSCOPE as a guaranteed and viable curriculum model. Marzano (2003) identified that one of the key factors in increasing student achievement to implement a guaranteed and viable curriculum. In Du Four's article (2007) *Professional Learning Communities: A Bandwagon, an Idea Worth Considering, or Our Best Hope for High Levels of Learning?* He established that establishing a guaranteed and viable curriculum along with other concepts, that students would benefit and it is representative of a best practice.

Significance of the Study

In 2001 the NCLB was passed and the accountability for public schools increased substantially because of the requirements for the states to develop standardized tests to measure students' academic achievement at increased standards. Under President Obama, the U.S. Department seems to be supportive in continuing with this direction in education (Tomsho, 2009). In Texas as of February 1, 2012, 820 school districts out of 1248, or 66%, have purchased and implemented CSCOPE. CSCOPE has become a statewide curriculum for grades K-12 in language arts, social studies, math and science.

Assumptions

School districts implemented CSCOPE with fidelity.

Delimitations

This study included districts in Texas that implemented CSCOPE curriculum management system for three or more years. Control districts that had not implemented CSCOPE during the same period were used in this study. Student demographic information was collected from the Academic Excellence Indicator System (AEIS). The most pressing need in Texas public schools is in mathematics; consequently, this study was further delimited to students' academic performance in this subject.

Limitations

This study only included 5A high schools across south central Texas. There was no way of concluding consistency and fidelity of the implementation of CSCOPE from school district to school district. Sub-populations were not taken into account with the findings.

Definition of Terms

Academic Excellence Indicator System (AEIS): The Academic Excellence Indicator System (AEIS) pulls together a wide range of information on the performance of students in each school and district in Texas every year. This information is put into the annual AEIS reports, which are available each year in the fall. The performance indicators for 2011-12 are:

- Results of the Texas Assessment of Knowledge and Skills (TAKS*), *note: for 2011-12, TAKS is only available for grades 10 and 11;*
- Exit-level TAKS Cumulative Passing Rates;
- Progress of Prior Year TAKS Failers;
- Attendance Rates;
- Annual Dropout Rates (grades 7-8 and grades 9-12);
- Completion Rates (4-year and 5-year longitudinal);
- College Readiness Indicators;
 - Completion of Advanced/Dual Enrollment Courses;
 - Completion of the Recommended High School Program or Distinguished Achievement Program;
 - Participation and Performance on Advanced Placement (AP) and International Baccalaureate (IB) Examinations;
 - Texas Success Initiative (TSI) – Higher Education Readiness Component;
 - Participation and Performance on the College Admissions Tests (SAT and ACT), and
 - College-Ready Graduates;

Performance on each of these indicators is shown disaggregated by ethnicity, special education, low income status, limited English proficient status (since 2002-03), at-risk status (since 2003-04, district, region, and state), and, beginning in 2008-09, by bilingual/ESL (district, region, and state, in section three of reports). The reports also provide extensive information on school and district staff, finances, programs and student demographics.

CSCOPE: (Not an acronym) is a comprehensive web based curriculum management program that includes components for establishing the curricular scope, sequence, vertical alignment, and student performance indicators based upon Texas Essential Knowledge and Skills, exemplar lesson, and assessments.

Instructional Focus Documents (IFD): Groups grade level or course standards into logical, coherent units for instruction.

Education Service Center (ESC): Texas has 20 Education Service Centers throughout the state. The service centers provide resources, consultants, and professional development opportunities to the school districts located in their region.

Public Education Information Management System (PEIMS): A state database that gives Texas public school districts and regional education service centers the reports needed to properly oversee education.

Texas Assessment of Knowledge and Skills (TAKS): A criterion-referenced assessment that measures student academic performance in Texas in grades 3 through 11. Students are tested in two or more of the following subjects each year: English language arts, mathematics, science, and social studies.

Texas Essential Knowledge and Skills (TEKS): The official K-12 curriculum in the state of Texas and details the requirements for every course. State mandated standardized tests measure the acquisition of specific knowledge and skills outline in this curriculum.

Vertical Alignment Documents (VAD): The VAD provides the grade level/course standards for the year's instruction, graphically representing aligned TEKS among and across grade levels and courses. The VAD also adds specificity and clarity to the TEKS.

Year at a Glance (YAG): provides a brief overview or "snapshot" of the entire instructional plan for the year.

The Importance of a Viable and Reliable Curriculum

According to the educational researcher, Robert Marzano (2003) the most significant factor in increasing student achievement is implementing a guaranteed and viable curriculum. A guaranteed and viable curriculum allows the student the opportunity to learn and the time to learn because the curriculum is clear about the standards and an adequate amount of time for the teachers to engage the students in learning the required content (Marzano, 2003). According to Bloom (1976) student academic achievement can improve significantly if the curriculum, instruction and lesson planning are aligned with curriculum-embedded assessments. English and Steffy (2001) asserted that regardless of the testing scenario, an aligned curriculum will increase student achievement. A curriculum that is specific about what the students should learn and align it to the standard and assessment should produce positive academic results (Squires, 2012).

Some states have already developed common core standards and some are in the process as well as assessment instruments (Glod, 2009). According to Fulmer (2011) the priority of effective and accurate measurement of alignment between the standards and the assessments will escalate.

CSCOPE Curriculum Development

Dr. John Crain of Region XIII, was the mastermind behind the creation and implementation of CSCOPE. During the 2005-2006 academic school year, the Texas Education Service Center Curriculum Collaborative (TESCCC) developed and then implemented CSCOPE during the 2006-2007 school year. The original members of the TESCCC included members of the education service centers 2, 6, 8 and 19 with 1 and 6 following. From there the remainder of the service centers committed excluding Region 4 (Spinn, 2012).

CSCOPE, in its early development, was a curricular scope and sequence but when its popularity increased the needs increased as well. The TESCCC and education service centers based all of their curricular components on researched-based data and Texas standards and added other components (Spinn, 2012).

The three key components of CSCOPE include curriculum and assessment, professional development, and innovative technology, according to the TESCCC (CSCOPE, 2012). TESCCC, comprised of curriculum specialists from regions of Texas, developed CSCOPE to provide a guaranteed and viable curriculum aligned to the Texas Essential Knowledge and Skills (TEKS) and is customizable, curriculum management system is based on the most current research-based practices. CSCOPE's goal is to increase student achievement (CSCOPE).

The first of the three components is the curriculum and assessment piece of CSCOPE. This curriculum model is constantly reviewed and updated and includes a K-12 systemic model in the four core content areas. CSCOPE's lessons are in English and Spanish, use common language and processes and structures for curriculum delivery and the curriculum is taught, written and tested in accordance with the TEKS (CSCOPE, 2012).

The second component piece of CSCOPE is professional development which includes modeling of instructional delivery and researched-based lessons as well as training on instructional strategies and delivery, best practice lessons, webcasting, video conferencing and technology support (CSCOPE, 2012).

The last component piece of CSCOPE is the innovative technology which can be accessed by teachers and administrators from home or work at their convenience. The teachers may create class home pages, build lesson plans and units and other aspects of this curriculum and share them. Administrators are also able to monitor their teachers' usage of the curriculum (CSCOPE, 2012).

CSCOPE was guided by the research of Marzano, English, Bybee, Jacobs, Wiggins and others and provides a guaranteed and viable curriculum that is vertically and horizontally aligned (Spinn, 2012). This curriculum provides exemplar lessons which the teachers may differentiate in order to meet the needs of their students. These lessons impart models of rigor and relevance (Spinn, 2012).

The three foundational CSCOPE documents include the Year at a Glance (YAG), the Vertical Alignment Document (VAD), and the Instructional Focus Document (IFD) (CSCOPE 2012). The YAG is the annual written curriculum framework and outlines the major units of study and how they correlate to the TEKS. The VAD provides the teacher with a three year view of every TEKS for that school year, the previous school year and the following school year (Merritt, 2011). This provides the teachers with the knowledge of what the students should have learned prior to his or her specific grade level, what they should learn at the grade level and what they will learn post this grade level. Aligned standards are presented at each grade level and include TEKS knowledge and skill statement and the specific expectations of the students (Merritt, 2011). The IFDs are packages of the TEKS so the teachers do not deliver the TAKS in isolation. The Instructional Focus Document is an extension of the VAD and used to logically sequence the standards in order to increase student learning. The IFD provides which TEKS will be taught for every six week period and include indicators of rigor (CSCOPE, 2012).

Findings

Scheuneman, Jones and Brown (2012) conducted a study and tested the hypotheses that economically disadvantaged students who received instruction under CSCOPE for a minimum of three years would have a significantly higher mathematics and science state test scores than students who received instruction under other curriculum models. The TAKS was used as the testing instrument. The study participants included thirty-three school districts for mathematics and twenty-seven school districts for science from Texas. These districts adopted CSCOPE as their curriculum in either the 2006-2007 or 2007-2008 school years and had a minimum of 40% economically disadvantaged. A comparison group of school districts equal to the CSCOPE group was selected. The study found that there were no significant differences between the adjusted mean scores of CSCOPE district and non CSCOPE districts in these subjects.

Another study done by Spinn (2012) in Texas compared two districts, grades three through eight in mathematics, one using CSCOPE and one not, with 43% and above on free or reduced lunch. The hypotheses tested was economically disadvantaged students who receive instruction under the branded CSCOPE curriculum model for a minimum of three years will have significantly higher mathematics scores than students who receive instruction under other curriculum models. The results for the sub-populations included student gender, race/ethnicity, limited English proficient status, and economically disadvantaged status were not statistically significant so were inconclusive. Because of this further research is needed regarding the effects of the CSCOPE curriculum management system on the performance of these student sub-populations. Students not identified in these sub-populations, on the other hand, performance outcomes displayed the positive effect on student performance associated with CSCOPE curriculum implementation.

Merritt's (2011) study included fifty-six schools districts, and over 125 campuses and analyzed CSCOPE's effect on standardized test scores for grades three through eight and three through eleven in math scores between the school districts that have implemented CSCOPE and those have not. The hypothesis was that there would be no significant difference in the percentage of students passing the TAKS test in these grades in the subject of mathematics compared to those using CSCOPE and those not using this curriculum management system. The results of this study demonstrated that CSCOPE had a statistically significant effect on mathematics (TAKS) assessment and also revealed that CSCOPE appeared to have a statistically significant effect when the TAKS data was disaggregated into individual grade levels.

Conclusion

There are proponents and opponents of the CSCOPE curriculum model and seemingly not much in between; however, most can agree that high stakes testing will not dissipate any time soon. More research should be done to determine if CSCOPE is effective in increasing student achievement on Texas' assessments. The results thus far have been mixed. The studies should expand by further disaggregating commended performance, college career

and readiness, dig deeper into the subpopulations and subjects of English and Spanish language arts, and social studies.

Reference

- American Recovery and Reinvestment Act (ARRA). (2009). Retrieved from <http://www.gpo.gov/fdsys/pkg/PLAW-111publ5/content-detail.html>
- Bloom, B. S. (1976). *Human characteristics and school learning*. New York: McGraw Hill.
- Brown, M., Jones, D., & Schuenemann, D. (2012). The impact of a curriculum model of the mathematics and science achievement of economically disadvantaged students. *National Forum of Educational Administration and Supervision Journal*, 29(1), 63-87.
- Cawelti, G. (1995). *Handbook of research on improving student achievement*. Arlington, VA: Educational Research Service.
- CSCOPE. (2012). *CSCOPE*. Retrieved from <http://www.cscope.us>
- DuFour, R. (2007). Professional learning communities: a bandwagon, an idea worth considering, or our best hope for high levels of learning? *Middle School Journal*, 39(1), 4-8.
- Eisner, E. W. (1982). *Cognition and curriculum: A basis for deciding what to teach*. New York: Longman.
- English, F., & Steffy, B. (2001). *Deep curriculum alignment*. Lanham, MD: Scarecrow Press.
- Fulmer, G. (2011). Estimating critical values for strength of alignment among curriculum, assessments, and instruction. *Journal of Educational and Behavior Statistics*, 36(3), 381-402. doi:10.3102/1076998610381397
- Glod, M. (2009, June 1). 46 States, D.C. plan to draft common education standards. *The Washington Post*. Retrieved from <http://washingtonpost.com/wp-dyn/content/article/2009/05/31/AR2009053102339.html>
- Haney, W. (2000). The myth of the Texas miracle in education. *Educational Policy Analysis Archives*, 8, 41. Retrieved from <http://epaa.asu.edu/ojs/article/viewFile/432/555>
- Herman, J. (2009). Moving toward the next generation of standards for science: Building on recent practices: National Center for Research on Evaluation, Standards, and Student Testing.
- Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R. J., & Kendall, J. (1996). *A comprehensive guide to designing standards-based districts, schools, and classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Massell, D. (2008). The current status and role of standards-based reform in the states: National Research Council.
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, §115, stat. 1425 (2002). Reyes, M.E. (2008). South Texas schools after NCLB: A status report. *The International Journal of Learning*, 15 (6), 249-252.
- Merritt, B. (2011). CSCOPE's effect on Texas' state mandated standardized test scores in mathematics (Doctoral thesis, Baylor University, 2011). *Doctoral Abstracts*. Retrieved from Baylor University Web site: <http://hdl.handle.net/2104/8231>

- Spinn, G. (2012). Instructional leadership: The Efficacy of student performance with CSCOPE curriculum implementation (Doctoral thesis, Texas Tech, 2012). *Doctoral Abstracts*. Retrieved from Texas Tech University Web site: <http://repositories.tdl.org/ttu-ir/handle/2346/45242>
- Squires, D. (2012). Curriculum alignment research suggest that alignment can improve student achievement. *The Clearing House*, 85, 129-135. doi:10.1080/00098655.2012.657723
- Texas Comptroller of Public Accounts. (2008). Texas in focus: A statewide view of opportunities. Retrieved from <http://www.window.state.tx.us/specialrpt/tif/96-1286.pdf>.
- Texas Education Agency. TAKS High School Graduation Requirements. <http://www.tea.state.tx.us/student.assessment/taks/hsgrad/>
- Tomsho, R. (2009, April 2). U.S. ties new funds to schools data. *Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB123860983393679075.html>
- Watt, K., Powell, C.A., Mendiola, I.D., & Crossio, G. (2006). Schoolwide impact and AVID: How have selected Texas high schools addressed the new accountability measures? *Journal of Education for Students Placed At-Risk*, 11(1), 57-73. Retrieved from http://avid.panam.edu/Documents/Research/Schoolwide_impact_and_AVID_How_Have_%20Selected_2006.pdf
- White, D. (n.d.). Pros & cons of the no child left behind act. About.com: US Liberal Politics. Retrieved from <http://usliberals.about.com/od/education/i/NCLBPorsCons.htm>
- Zehr, M. (2009). States slow, put off work on standards. *Education Week*, 29(11), 1-5.