Validation Study III: Alignment of the Texas College and Career Readiness Standards with Courses in Two Career Pathways

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Executive Summary

This is the fourth report in a series of five reports resulting from the Texas College and Career Readiness Initiative (TCCRI) established by the Texas Higher Education Coordinating Board (THECB) under contract with the Educational Policy Improvement Center (EPIC) The purpose of the TCCRI is the Facilitation of the Development and Implementation of the College and Career Readiness Standards. The results of the TCCRI include the following:

- Texas College and Career Readiness Standards
- Validation Study I: Alignment of Texas College and Career Readiness Standards with Entry-Level General Education Courses at Texas Postsecondary Institutions
- Validation Study II: Alignment of Texas College and Career Readiness Standards with Entry-Level Career and Technical Education College Courses at Texas Postsecondary Institutions
- **Validation Study III: Alignment of Texas College and Career Readiness Standards with Courses in Two Career Pathways**
- Texas College Readiness Assignments

Texas College and Career Readiness Standards. In 2007, EPIC facilitated the development of the Texas College and Career Readiness Standards (CCRS) in partnership with the THECB and the Texas Education Agency (TEA). Vertical teams of secondary and postsecondary faculty representing all regions of the state engaged in the development process. These standards were adopted by the THECB in January 2008 and approved by the Commissioner of Education later that year. Subsequently, the State Board of Education (SBOE) incorporated the CCRS into the secondary Texas Essential Knowledge and Skills (TEKS), Texas public school curriculum. Under the leadership of TEA, reconstituted vertical teams of secondary and postsecondary faculty assisted TEA and the SBOE in conducting an alignment analysis of the newly adopted CCRS and the secondary TEKS.

Similar to the TEKS alignment analysis, three validation studies conducted by EPIC compared the CCRS with general education and career and technical education college courses to establish the validity of the CCRS as an accurate representation of the key knowledge and skills necessary for college and career readiness and success. The results of each of the validation studies affirm the accuracy of elements of the CCRS and identify areas where additions, deletions, or modifications to the standards should be considered.

Validation Study III: **Alignment of Texas College and Career Readiness Standards with Courses in Two Career Pathways.** The analysis in Validation Study III builds upon two previous studies exploring the relationship between the CCRS and current practice in postsecondary education in Texas. The first, *Validation Study I: Alignment of the Texas College and Career Readiness Standards and Entry-Level General Education Courses at Texas Postsecondary Institutions* (October, 2008; herein referred to as Validation Study I), reported the results of an alignment analysis between the CCRS and what is taught in entry-level general education college courses in Texas postsecondary institutions. The second, *Validation Study II: Alignment of Texas College and Career Readiness Standards with Entry-Level Career and Technical Education Courses at Texas Postsecondary Institutions* (March, 2009; herein referred to as the Validation Study II), reported the results of an alignment analysis conducted to determine the relationship between the CCRS cross-disciplinary standards and the content taught within a representative range of entry-level CTE courses offered at Texas postsecondary institutions.

This study replicates the methodology employed by the two previous efforts. It analyzes the alignment between all of the CCRS (English, mathematics, science, social studies, and cross-disciplinary standards) and two specific CTE course pathways – nursing and computer programming. In particular, this study analyzed the CCRS in relation to the level of preparation necessary for entire CTE career pathways beyond entry-level courses in all five CCRS subject areas.

To determine alignment, faculty members who teach courses typically included in nursing and computer programming pathways at two-year institutions of higher education (IHE) in Texas were invited to participate by completing an online rating exercise in which they described the importance of each of the CCRS to their course. Between August and October of 2009, 115 CTE course instructors representing 22 courses in two course pathways at 27 different postsecondary institutions throughout Texas submitted ratings about the importance of the CCRS in relation to their course(s), resulting in 138 course submissions.

For this study, a standard is considered aligned if one of two criteria is met: 1) the instructors from at least one course within the pathway most frequently reported (modal response) that the standard was *most necessary* or *more necessary* in preparing students to succeed in the course; or 2) the instructors from at least one course within the pathway most frequently selected (modal response) the rationale statement that the standard is: *required*, *not covered in course*; *reviewed only, not re-taught*; or *introduced as new material*. Overall, a standard is considered aligned to a pathway if a standard is considered necessary or is taught in at least one course and that course is necessary for successful completion of a pathway.

The results of the faculty ratings indicate that the CCRS are considered to be 100 percent “necessary” or “taught” in at least one course in all subject areas (English, mathematics, social studies, and cross-disciplinary standards), except for 87 percent of the science standards. Stated another way, every CCRS except for13 percent in science are either necessary for successful preparation or included in at least one course within these two common CTE pathways. The findings offer empirical evidence from current practice that the CCRS are a valid representation of career readiness as indicated by the percentage of alignment between the CCRS and the knowledge students are expected to know or will learn as they progress down common career pathways.

The findings are consistent with the results of the previous two validation studies comparing the CCRS to postsecondary expectations in Texas institutions of higher education. Secondary institutions can use the alignment results to create integrated CTE courses aligned with current postsecondary expectations and practice. Postsecondary institutions can use this information to conduct self-studies of content included in course pathways and to increase consistency between the pathways offered at different institutions. Statewide, this study is a continuing step toward deeper understanding of the knowledge and skills needed for success in select two-year CTE programs.