Using Pre-College Experiences to Increase College Access and Readiness for Underrepresented Students

Marshall Swafford
Assistant Professor
Eastern New Mexico University
1500 South Avenue K, Station 11
Portales, NM 88130
(575) 562-2526
marshall.swafford@enmu.edu

Steven Chumbley
Assistant Professor
Texas A&M University-Kingsville
MSC 228 Texas A&M University-Kingsville
Kingsville, TX 78363
(361) 593-3808
steven.chumbley@tamuk.edu

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Introduction

It is a commonly held feeling among educators that there is a lack of alignment in curriculum, standards and assessments between high school and higher education (Bailey, Hughes & Karp, 2002). This has negative impacts on students, especially upperclassmen, as they transition to college and careers. Nearly 60% of first-year college students discover, while fully eligible to attend college, they are not academically prepared for higher education (National Center for Public Policy and Higher Education, 2009). Specifically, in New Mexico 32% of high school students were found to possess college ready skills in math and science (Winograd & Sallee, 2011). The problem is exacerbated with minorities and students from low socioeconomic backgrounds (Balfanz & Legters, 2004). However, engaging students in experiences prior to college enrollment, which engage students in a university-like setting, can mitigate the college-readiness challenges (Porter, 2003).

Engaging underrepresented students in pre-college experiences, like dual enrollment, provide high school students the opportunity to complete postsecondary courses on their high school campus, university campus, or online. Dual enrollment programs offer students the chance to earn college credit in high school, provide financial savings, allow them to expand their course offerings in agriculture, and offer them early access to college. Students' participation in dual enrollment courses plays a significant role in degree persistence, especially for those students who continued their enrollment in postsecondary education without a break of more than one semester (Swanson, 2008). The quality and breadth of the high school course of study produces the greatest influence upon students' future college persistence and degree attainment (Adelman, 1999). Participation in dual enrollment can shorten the time required to graduate with a degree in agriculture, reducing overall costs to families and students of postsecondary education (Porter, 2003).

How it Works

This project, sponsored by a United States Department of Agriculture Higher Education Challenge Grant (USDA-HEC) Program sought to increase college access and readiness of underrepresented students. This project was a collaborative effort between the Agricultural Science program and the Office of Distance Education at Eastern New Mexico University. High school students in New Mexico are able to complete seven agriculture courses at Eastern New Mexico University. Courses are offered in two modalities: 1) taught by the high school agriculture teacher, serving as a university adjunct or 2) in a hybrid model where students complete their assessments online while their agriculture teacher facilitates course content and laboratory activities in the high school setting.

Through the three-year project, the following steps were taken to accomplish the three objectives set forth the project staff:

Objective 1: Develop new online dual enrollment offerings and refine current offerings to

increase course quality. To accomplish this objective, the project staff, in conjunction with agriculture faculty and distance education experts, developed a new horticulture-based, hybrid dual enrollment course. In addition, all existing hybrid-model courses were evaluated using the Quality Matters® (QM) online course evaluation program.

Objective 2: Prepare secondary agriculture teachers to effectively deliver hybrid model dual enrollment courses. To meet this objective, project staff provided individualized and group-based professional development programming to secondary agriculture teaches in New Mexico. Professional training focused on curriculum content, technology implementation, and experiential teaching methods.

Objective 3: Increase the enrollment in the Eastern New Mexico University agriculture dual enrollment program. With the assistance of undergraduate researchers, the project staff made on-site visits to secondary agriculture programs throughout New Mexico along with presentations at state-wide events including the State FFA Convention and New Mexico agriculture teachers conference. Descriptions of the program and potential benefits were presented to teachers and students to serve as recruiting information to build enrollment.

Results to Date

The project was successfully implemented and all three objectives were met. One new course was offered and all existing courses were subjected to QM review and revisions were made. Additionally, QM concepts were applied to the non-online courses and content and delivery improvements were made as well. Over 50 on-site visits to schools throughout the state were made along with presentations at the State FFA Convention in addition to the New Mexico agriculture teachers conference and district FFA events. Student enrollment in the dual enrollment program increased by over 40%, with 25% of the growth attributed to minority students and, over the three-year life of the project, school participation in the program increased by 100% to include 52 of the 87 secondary agriculture programs in New Mexico.

Conclusions/Future Plans

This project has provided Eastern New Mexico University with the tools necessary to build the infrastructure to engage underrepresented students in pre-college experiences that support college access and readiness. Project participants have clearly stated the positive impact of their experiences and communicated their favorable opinion of the project in supporting their education and career goals. Given the success of this project, planning has already begun to seek additional funding in the form of a project extension with the USDA-HEC Grant Program.

Costs

This project was funded by a grant from the United States Department of Agriculture's Higher Education Challenge Grant Program. The grant provided a total budget of $149,137.

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