

**Fishing for Answers: Barriers to Secondary Agricultural English Course Adoption**

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### **Introduction**

Wamba (2012) said, "...literacy education plays an important role in moving people out of poverty toward greater self-sufficiency post-graduation" (p. 109). Nearly 47% of first-time California community college students are enrolled in remedial English coursework (Student Success, 2015). Further, California high school dropout rates are at 11% due to "school-related reasons...implying a lack of engagement and lack of perceived relevance" in curriculum (Gottfried & Plasman, 2017, p. 30). Literacy in our high school classrooms must be addressed.

Career and Technical Education (CTE) coursework has been linked to lower dropout rates; particularly in grades 11 and 12 (Gottfried & Plasman, 2017). University of California Curriculum Integration (UCCI) was developed to help teachers facilitate creating courses which were both CTE and academically aligned for college preparation (UCCI, 2014). The Business of Sustainable Agriculture course was developed as a UCCI curriculum project to help high school seniors gain skills in writing and entrepreneurship in agriculture while meeting University of California area "b" (English) entrance requirement for 12th graders. According to the UCCI portal, only one California school is currently offering the course.

The adoption of innovative, curriculum ensures high school students are prepared for life post-graduation. This research aligns with Priority 4 of the AAEE National Research Agenda - Meaningful, Engaged Learning in All Environments (Roberts, Harder, & Brashears, 2016), by examining how agricultural education programs evolve to meet student needs. Investigating barriers preventing adoption of beneficial curriculum capable of increasing literacy, preventing dropout, and producing a viable workforce will strengthen CTE programs in agriculture.

### **Theoretical Framework**

Rogers' (1995) innovation-decision process framed the theoretical background of this study. Knowledge, persuasion, decision making, implementation, and confirmation comprise the process in which "information-seeking and information-processing...reduce uncertainty about the advantages and disadvantages of an innovation" (Rogers, 1995, p. 172). Ultimately, the innovation-decision model outlines a process that occurs over time in which different barriers may stall the process. The literature revealed barriers to curriculum adoption are centered on cost-benefits and increased teacher workload (Lionberger, 1960; Conroy, 1999). Further, lack of understanding and awareness of curriculum have also been identified as potential barriers to the adoption of innovative curriculum (Conroy, 1999).

### **Methodology**

The Delphi technique is "a widely used and accepted method of gathering data from respondents within their domain of expertise" (Hsu & Sandford, 2007). We used this technique to form a consensus from leaders in California agricultural education. All 30 participants were regional officers for the California Agricultural Teachers' Association (CATA). Reliability was considered high with at least 11 participants in each round (Dalkey, 1969).

In round one we asked: To your knowledge, what barriers do you perceive as preventing California teachers of school-based agricultural education (SBAE) from implementing the UCCI

Business of Sustainable Agriculture course for UC English area “b” credit? A 60% (n=18) response rate generated 12 answers from which the second round was created. In round 2, we asked participants to rate the 12 items on a scale of 1 (minimal barrier) to 10 (extreme barrier) in preventing California teachers of SBAE from implementing the course. This round had a 66% (n=20) response rate, where respondents rated all 12 barriers an average score of 5 (moderate barrier) or more. Round 3 asked participants to rank the 12 items from least to greatest barrier providing a final list of 5 barriers to course adoption with a 60% (n=18) response rate. In round 4 we asked for additional insight on the final 5 items and had a 53% (n=16) response rate.

### **Results and Findings**

The following were the top five perceived barriers, in ranked order, as to why California teachers of SBAE have not implemented the UCCI Business of Sustainable Agriculture course:

Barrier 1: Lack of acceptance by English Department.

Barrier 2: Competition between Agriculture and English departments to teach the course.

Barrier 3: Agriculture teachers are not qualified to teach English.

Barrier 4: Challenges with district course adoption policies.

Barrier 5: Agriculture teacher fear of teaching the content.

### **Conclusions**

Respondents agreed with the top five barriers and offered comments. Most came to the conclusion English departments would not embrace an agriculture class where students would receive English credit; especially in smaller agriculture programs. “At a small high school, this option to offer yet another singleton class will be a huge challenge,” one participant said. Another advocated the course be taught by an English teacher in order to gather more approval of the course content from the English department. While cost-benefit and teacher time were not explicitly indicated, it was evident time and money allocated toward improving agriculture teachers’ abilities to teach the class would also be an obstacle. These barriers provided insight into the innovation-decision process in connection to curriculum adoption in California, asserting paucity of knowledge was a predominant factor influencing initial adoption stages.

### **Implications/Recommendations**

Further research is recommended in order to understand how innovative curriculum is adopted at the high school level, particularly curriculum overlapping two content areas. It is recommended a follow up study be conducted at the current program who has implemented the UCCI Business of Sustainable Agriculture course to understand their curriculum adoption process and the relationship with their English department. Leadership within the state of California should look at providing professional development opportunities which promote acquisition of skills to teach literacy and writing in order to alleviate fear of the content and build collegial rapport with teachers of English. Innovative curriculum, like the UCCI Business of Sustainable Agriculture class, gives rigor and relevance to CTE programs. Implementing cross-disciplinary curriculum between English and agriculture could prove to be valuable for agriculture students, making them literate members of society who can write their own futures.

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