View From The Top: A California Agricultural Education Leadership Delphi Perspective

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**Introduction/need for research**

Maintaining a pool of high quality teacher candidates is a challenge exacerbated with the expansion and creation of programs statewide. Nationally, 739 teachers reported leaving the agriculture classroom with teacher preparation programs only providing 717 new teachers (Foster, Lawver & Smith, 2014), leaving a gap to fill. As of May 2, 2016 there were 65 agriculture teaching positions open in California (D. Dunnigan, personal communication, May 2, 2016). Teacher preparation institutions in California estimated producing 62 new teachers during the 2015-16 academic year, leaving a gap to fill during the early stages of the hiring season (California Department of Education [CDE], 2015).

The shortage of agriculture teachers requires our profession to urge students to join the profession. This research aligns with the Priority 5 - Efficient and Effective Agricultural Education Programs of the AAAE National Research Agenda (Doerfert, 2011) by providing insight to the current situation of our agriculture programs and teachers. California agricultural education leadership has designated this as an area of critical concern to the profession (L. McCabe, personal communication, October 15, 2015), thus their opinions were sought.

**Conceptual or theoretical framework**

This study is based on Social Cognitive Career Theory (Lent, Brown & Hackett, 1994, 2000, 2002) which indicated “performance and persistence in educational and occupational pursuits” (1994, p. 79) as conditions which affect the development of an individual’s career choice. Lent et al. (1994) described academic development and career choice as “dovetailing” (p. 81) with information acquired during school, ultimately affecting career decisions.

**Methodology**

A Delphi Study, or “group process which utilizes written responses as opposed to bringing individuals together,” (Delbecq, Van de Ven, & Gustafson, 1975, p. 83) was conducted to form a consensus of 18 leaders in California agricultural education including: Six Department of Education Consultants, the California FFA Advisor, the Executive Director of the California Agricultural Teachers Association [CATA], the five state officers for the CATA, and the five program coordinators from institutions whom credential agriculture teachers in California (CATA, 2016 & CDE, 2016). Reliability is high at .75 with 11 participants (Dalkey, 1969).

The round one question was: To your knowledge, list of all of the reasons why agriculture teacher candidates/college students who express an interest in becoming an agriculture teacher have not continued on the path towards becoming an agriculture teacher? The 94% response rate generated answers coded into 24 different categories forming the second round. During round 2, the 24 items were rated by participants on an interval scale of 1 to 10 identifying how greatly participants thought the reasons deterred persons from continuing towards becoming an agriculture teacher (1=little deterrence and 10=extreme deterrence). The second round had 100% response rate finding 13 items rated an average of 5 (moderate deterrence) or more. Round 3 asked the respondents to rank the 13 items from round 2, providing a list of 5 ranked deterrents with a 94% response rate. Round 4 had 78% participation offering any additional insight into the top 5 deterrents.

**Results/Findings**

The following are the top five reasons and comments, in order of greatest deterrent, why agriculture students who previously expressed an interest in becoming an agriculture teacher did not continue pursuing a credential according to California agricultural education leadership:

Deterrent 1-Job offers from industry. "From personal experience with our students I know that #1 and #2 have caused some of our best students not to start the credential program."

Deterrent 2-Time needed to complete credential requirements. “Because Agricultural Education in California has the same basic requirements as all credential programs in the state (History, Math, English, etc.) including BTSA (should we spell this out?), extra year to earn credentials, student teaching, etc.”

Deterrent 3-Financial hardship. “I think this is about where it should be as it is REALLY hard to student teach, for zero money, live in a strange place and get finished.”

Deterrent 4-Credentialing process perceived as "burdensome.” “If the process was not so burdensome I believe that job offers from the industry would be less of a factor.”

Deterrent 5-Unable to meet credential program requirements. “Most of the candidates know well in advance that they are not eligible based on an obstacle [i.e.: grade point average requirement, difficulty of required coursework]. They often self-select out well before student teaching.”

**Conclusions**

 Most stakeholders agreed with the top five deterrents, although not particularly in order. Several commented on overlap of deterrents 2, 4, and 5. It is difficult to pinpoint why students accept job offers from industry. Financial considerations of student teaching and burdensome requirements of the credential program may play a role in a students’ decision not to pursue a credential. Most agreed scholarships or financial incentives need to be maintained and/or increased, especially during the student teaching process. The credentialing process needs to be streamlined with special consideration to maintain quality. Finally, Social Cognitive Career Theory suggests (Lent et al, 1994), students need regular, continued exposure to the idea of pursuing agricultural education as a career starting in high school and continuing during their college career. Talents and passions developed during school will affect career choice.

**Implications/Recommendations/Impact on profession**

Further studies are recommended to determine how agriculture credential requirements can be reduced and to examine the relationship between students who choose to enter the industry as opposed to completing a credential program. Additionally, further research should be conducted to determine effective methods to identify and nurture high school students with an interest or propensity to teach agriculture, as well as how teacher preparation programs can work with them to move them through the credential process.

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