Factors Affecting School Connectedness Among Agricultural Education Students in Colusa County, California

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Introduction/Conceptual Framework

The high school graduation rate in the United States is currently 77 percent, lower than it was 40 years ago with an estimated 1.3 million students not earning their high school diploma in 2010 (Rotermund & Rumberger, 2013). The high number of students that fail to earn a high school diploma may be explained by the estimated 40-60 percent of all high school students that are disengaged from school (Klem & Connell, 2004). According to CDC there are four promotion factors that are related to school connectedness; adult support, belonging to a positive peer group, commitment to education, and school environment (CDC, 2009). Witt et al. (2012) found when educators better understand students and the actors that affect their sense of school connectedness, the more likely they will provide interventions to students who are likely to drop out of school or engage in negative health behaviors due to lower sense of school connectedness. One of the promotion factors that affects students' relationships to school connectedness is belonging to a positive peer group as peer relationships can form student perceptions, how a student sees his/her friends is likely to be how they see themselves and also how they connect to school (Juvonen, Espinoza, & Knifsend, 2013). Problems with student engagement and success remain an issue within education, yet schools aren't showing success implementing new procedures to change the problem. Agricultural education programs have characteristics that align directly with the promotion factors, however, little research has been done on the promotion factors in agricultural education that influence school connectedness.

Methodology

Addressing the research priority of *meaningful, engaged learning in all* environments (Roberts et al., 2016), this study sought to examine the promotion factors that influence students' school connectedness and elaborate on how they impact students. Specific research questions were: (1) How do students rate the levels of adult support, positive peer groups, commitment to education, and positive school environment factors present in their agricultural education program; (2) How do students in agricultural education programs describe the influence of school connectedness promotion factors on their sense of school connectedness?; and (3) How can the understandings that emerge from the qualitative data be used to provide deeper understanding of the influence of these school connectedness promotion factors present agricultural education programs on students' sense of school connectedness? A mixed method approach was employed in order to strengthen the statistical data with qualitative data that can provide supplemental information and explanation to the statistical data collected (Greene, Caracelli, & Graham, 1989). The first section of the questionnaire consisted of 54 Likert-type items made up of statements related to school connectedness (Lohmeier & Lee, 2011). Reliability of the instrument was assessed post-hoc calculating a Cronbach's alpha for each section of the survey with results ranging from .86 - .97. The second phase of this study was qualitative utilizing focus groups at each school in order to gain further understanding of the school connectedness promotion factors' level of presence and the degree of impact they had on students at each school. A moderator's guide developed by Witt (2012) was used to explore the school connectedness promotion factors and students' sense of connectedness on a broader more personal level. This study was a census of every student enrolled in an agricultural education classes in Colusa County ($N = 4$), a rural county in California with a population of approximately 21,000. Each high school superintendent and principal was contacted by email and asked for permission to conduct the study with their high school and the students enrolled in agricultural education programs. SPSS® software was used to analyze the quantitative phase of the study. Non-parametric statistics were used to determine how students rated levels of school

connectedness, adult support, peer group, commitment to education, and environment. The Kruskal-Wallis H-test was used to compare the students' sense of connectedness between each of the four schools by comparing two or more samples that are independent, and it is equivalent to the parametric one-way analysis of variance (Corder & Foreman, 2014). Analysis of the qualitative phase involved transcribing the audio recordings from the focus group (30 - 90 minutes in length) and then coding the transcription. Once coding began the transcripts were analyzed and coded together due to similarities and themes in the information the students provided using three phases, open coding, axial coding, and selective coding (Gibbs, 2007).

Findings

Research Question 1: The mean scores indicated students' perceptions of the presence of the school connectedness promotion factors in their agricultural education program rating all factors above the scale mid-point with statements related to peer group ($M = 3.84$) and positive environment ($M = 3.78$) as the highest promotion factors in their agricultural education programs. Students also rated the other two promotion factors above the mid-point level, commitment to education ($M = 3.66$) and adult support ($M = 3.64$).

Research Question 2: A total of 26 students from four high schools participated in the focus groups with one focus group conducted at each high school in the agriculture classroom on each campus. All students were between the ages of 14 and 19 and were freshman, sophomores, juniors, or seniors enrolled in a high school agricultural education class and either white or Hispanic. When discussing *connectedness*, several different topics were brought up with the three most common discussed topics being cliques, people finding out everything about others and being judgmental, and status or last name. When discussing *their schools*, students talked about school staff, coaches, and their agriculture teachers. Students mentioned both the good qualities and things they like as well as the things they didn't like that made them feel like the staff (e.g. coaches) did not care. When discussing their *agriculture teachers*, students discussed how supportive and encouraging agriculture teachers are, how much time their agriculture teacher dedicates to students, and their agriculture teacher's personality and attitude in a positive light. Students at each of the schools had multiple opinions on different topics when asked about their ag classes or their ag program. Common topics that were brought up were positive and negative factors to their ag classes or program with most frequent topics being the real world and hands-on experiences that they get by having an ag class or ag program in general and how the experiences help them. Students also brought up topics that they felt were more negative about the ag classroom or program such as the teacher, organization, planning, and students' behavior in class. At each school students talked about how the teacher's behavior and actions regarding favoritism, singling students out, and gender, impact the environment.

Research Question 3: From the school with the lowest school connectedness, several items emerged from the focus groups conducted that provide deeper understanding or explanation for the significantly lower score. Items that emerged were favoritism, the teacher being older, cliques, and lack of school spirit.

Conclusions and Discussion

Aa deeper understanding to questions regarding students' sense of school connectedness in their agricultural education program emerged as almost every student in each focus group talked about some form of extracurricular activities whether it was sports, FFA, or another organization. Aside from extracurricular activities, the qualitative data collected aligned with the CDC's (2009) four connectedness promotion factors. The data was able to distinguish the difference between the negative adult support and the positive adult support. This insight found positive teachers, and teachers who helped promote education and students saw opportunities more highly. Teachers that put in no effort or acted as though they did not care caused students to reflect that same attitude towards the classes taught by those teachers.

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