

Fostering Academic Success for University Agriculture Students: The Role of Social Self-Efficacy on First-Year Grade Point Average

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Introduction

Currently, more young adults from 18 to 24 years old decide to enroll in college than any previous generation (Taylor, Fry, Wang, Dockterman, & Velasco, 2009). However, even with the undergraduate enrollment rates at an all-time high, universities continue to experience low academic performance and high attrition rates (Devonport & Lane, 2006). Walsh and Robinson Kurpius (2016) noted that a student's freshman year can significantly impact their future in higher education. Such attrition is often linked to students' poor academic performance (Walsh & Robinson Kurpius, 2016). However, failure to socially and academically integrate first-year college students in university environments has also been shown to demonstrate negative effects. For example, Tinto (1993) noted that a student's integration into an institution is critical to their academic performance and persistence (Walsh & Robinson Kurpius, 2016). Because of this, *social* factors have been recognized as a presage variable that foregrounds students' success in higher education (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). A need existed, therefore, to examine the role of social factors in agriculture students' academic success.

Theoretical/Conceptual Framework

We grounded this investigation in Bandura's (1994) social cognitive theory. Bandura (1994) theorized that self-efficacy could be improved through four key experiences: (1) mastery experience, (2) vicarious experiences, (3) social persuasion, and (4) physiological and emotional states. Using this lens, the current study was positioned to examine *social self-efficacy*, which is defined as "confidence in one's ability to engage in the social interactional tasks necessary to initiate and maintain interpersonal relationships in social life and career activities" (Anderson & Betz, 2001, p. 1). As such, social self-efficacy can help facilitate greater social integration and positively affect students' retention and academic achievement (McIntyre, 2017).

Purpose and Objectives

This study's purpose was to examine relationships among freshmen College of Agriculture students' social self-efficacy and their first-year grade point average (GPA) at Louisiana State University. The American Association for Agricultural Education's National Research Agenda Research Priority 3: *Sufficient Scientific and Professional Workforce* supported the need for this study because it called for future research to address the challenges of attracting new individuals to the agricultural industry in the 21st Century (Stripling & Ricketts, 2016). Two objectives guided the study:

1. Describe the personal characteristics (i.e. gender, age, academic classification, and ethnicity) of [University] College of Agriculture freshmen who completed a one-credit introductory course during the fall semester of 2017;
2. Describe relationships among freshmen College of Agriculture students at Louisiana State University's social self-efficacy and their first-year GPA after completion of a one-credit introductory course during the fall semester of 2017.

Methods

The target population of this study consisted of all students enrolled in a one-credit introductory course during the fall 2017 semester ($N = 237$). Data were collected at the end of the semester via Qualtrics using a web-based instrument, and 211 students completed the instrument, which resulted in an 89% response rate. We used Fan's and Mak's (1998) social-efficacy scale to measure four constructs: (1) social difficulties, (2) social confidence, (3) sharing interests, and

(4) friendship initiatives. The instrument was comprised of 20-items and presented on a 5-point Likert-type scale. Negatively worded items were reverse coded so that high agreement indicated a higher self-efficacy. Each of the constructs yielded satisfactory ($\alpha > .70$) post-hoc reliability coefficients. Face and content validity were determined by one agricultural education faculty member and four agricultural education graduate assistants for the course. Data were analyzed utilizing SPSS version 26 for Macintosh. Descriptive statistics, including means, frequencies, and percentages were utilized to address objective one. For objective two, we used bivariate correlational analysis by which Pearson's *R* correlational coefficient was employed. Then, Davis' conventions (as cited in Miller, 1994) were used to assess the magnitude of correlation coefficients: $0.1 \geq r \geq .09 = \textit{Negligible}$; $.10 \geq r \geq .29 = \textit{Low}$; $.30 \geq r \geq .49 = \textit{Moderate}$; $.50 \geq r \geq .69 = \textit{Substantial}$; and $.70 \geq r \geq .99 = \textit{Very High}$.

Results

Regarding participants' characteristics, the majority (74.4%; $f = 157$) of respondents were female and did not live in a College of Agriculture sponsored residential living and learning environment (53.1%; $f = 112$). Further, students were primarily white (78.2%; $f = 165$). The second objective explored relationships among students' social self-efficacy and their first and second semester GPA (see Table 2). Overall, there were no statistically significant relationships ($p > .05$) reported (see Table 1).

Table 1
Relationships Among Students' Social Efficacy and their First and Second Semester GPA at Louisiana State University University

Social Efficacy Construct	First Semester GPA			Second Semester GPA		
	<i>N</i>	<i>p</i>	<i>r</i>	<i>N</i>	<i>p</i>	<i>r</i>
Social Difficulties	204	.794	.018	194	.878	.011
Social Confidence	203	.647	.032	194	.612	.037
Sharing Interests	203	.395	.060	193	.501	.048
Friendship Initiatives	203	.835	-.015	193	.968	.003
Social Efficacy Total	199	.443	.055	190	.447	.056

Conclusion/Limitations/Recommendations

Although existing research suggested that social self-efficacy and academic success are deeply intertwined (Bandura et al., 1996), this study's findings reported no statistically significant relationships ($p > .05$) among the variables. It is possible that our analyses were limited due to the unique context as well as other barriers associated with using quantitative instruments. Perhaps, therefore, future studies should consider whether a qualitative approach might yield new insight into this phenomenon. For example, by viewing this phenomenon from a naturalistic lens it could help open up new possibilities for future research, theory, and practice. Because of the lack of significant findings in this study, we also recommend expanding the quantitative instrument to examine concepts such as students' social support and interaction with peers.

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