

Assessing Sense of Belonging in First Generation Students at an Agricultural University

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Introduction

Engaging first-generation (FG) students can be a complex enterprise in a college of agriculture. Chen (2005) defines FG college students as those whose parents have earned a high school diploma or less. Researchers state that FG students are “over-represented in biological and agricultural sciences” (Dika & D’Amico, 2016), as colleges of agriculture continue to be the campus landing space for many first-generation students.

FG students rely on the support and interactions they have on college campuses for guidance, in addition to the family support, teacher encouragement, and self-motivation that are key in their college enrollment and success (Irlbeck, et al., 2014). While FG students enrolled in colleges of agriculture have shown to be more engaged in extracurricular activities (Giorgio, et al., 2020), FG students continue to show difficulty in the transition process and often have lower GPA’s than previous cohorts of first-gen students (Eveland, 2020).

Need for Study

FG students report concerns with *belonging* or “fitting in”, which a 2012 study reports may be due to a disconnect between FG student values and university values (Stephens et al., 2012). Previous research called for support systems for these students that focused on academic outcomes (Irlbeck, et al 2014; Gibbons, et al., 2020), but also of mental wellness (Becker, et al, 2017). A growing FG population within agricultural colleges, alongside a consistent concern of belonging, brings an opportunity to assess FG students’ sense of belonging.

Theoretical Framework

This study utilized a Sense of Belonging framework from an Ohio State survey study (2020) to assess the perceived sense of belonging within FG agricultural students and compare with non-FG (Giorgio, et al.). Although little literature exists surrounding FG sense of student belonging, Giorgio et al. found high level of involvement by FG students, especially in agriculture (2020).

Methodology

In fall of 2021, researchers launched an agricultural college-wide diversity, equity, and inclusion Qualtrics survey that collected data on the FG status of students and their sense of belonging, created by a DEI committee and analyzed by a student research group in SPSS. The survey had ($N = 14$) questions utilized comparing FG students’ sense of belonging to their non-FG peers.

Findings

A total of 326 students ($N = 326$) from an agricultural college responded to the survey, 13% of the student population. Table 1 shows frequency distribution of FG status.

Table 1

Frequency Distribution of Students’ First-Generation Status (N = 326)

| Variable | <i>f</i> | <i>f</i> (%) | Mode |
|----------------|----------|--------------|--------|
| Student Status | | | Non-FG |
| Non-FG | 227 | 69.6 | |
| FG | 90 | 27.6 | |
| Unsure | 9 | 2.8 | |

Results showed 27.6% of students ($n = 90$) considered themselves a first-generation student, 69.6% considered themselves non-FG, and the remaining 2.8% ($n = 9$) were unsure of their status. Table 2 shows the comparative means of students' belonging statements by FG status, excluding the respondents ($n = 9$) that were unsure of their status.

Table 2

Comparative Means of Students' Belonging Statements by First-Generation Status (N = 317)

| Belonging Statement (I feel...) | FG | | Non FG | | <i>p</i> |
|---|----------|-----------|----------|-----------|--------------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| I am a member of the university community. | 3.4 | 0.6 | 3.4 | 0.6 | .61 |
| I have connections with other university students. | 3.2 | 0.8 | 3.5 | 0.6 | .09 |
| I have connections with faculty. | 3.0 | 0.8 | 3.2 | 0.6 | .2 |
| I have connections with staff. | 2.8 | 0.8 | 3.1 | 0.7 | .03* |
| I participate in university traditions. | 3.0 | 0.7 | 3.2 | 0.8 | .003* |
| I feel a sense of belonging at my university. | 3.2 | 0.7 | 3.3 | 0.7 | .55 |
| I belong in my college. | 3.2 | 0.8 | 3.4 | 0.7 | .3 |
| I belong in my major. | 3.3 | 0.8 | 3.4 | 0.6 | .23 |
| My college allows me to be my authentic self. | 3.1 | 0.8 | 3.3 | 0.7 | .14 |
| My unique background and identity are valued. | 3.1 | 0.7 | 3.1 | 0.8 | .16 |
| My opportunities are the same as other students. | 3.0 | 0.9 | 3.2 | 0.8 | .01* |
| Most of my peers in my college are like me. | 2.6 | 1 | 2.8 | 0.8 | .23 |
| Most faculty members are like me. | 2.5 | 0.9 | 2.7 | 0.8 | .49 |
| Most staff members are like me. | 2.6 | 0.8 | 2.7 | 0.8 | .67 |

* $p < .05$

FG and non-FG students had no significant difference in their identities being valued, the college allowing them to be their authentic self, or the perception of faculty, staff, and peers being like them. FG and non-FG students had no significant difference within student/faculty connections or their sense of belonging in the university, agricultural college, and major.

Conclusions

The first major conclusion of this study shows FG students having a significant difference in their perception of equal opportunities to their peers, confirming Stephens et al. study's (2012) significant concern of FG students' *belonging* or "fitting in". Researchers also found a significant difference between FG students and their peers within their connection with staff and participation in university traditions, contradicting Giorgio et al. (2020), which found FG students enrolled in colleges of agriculture to be more engaged in extracurricular activities.

Implications/Future Research

The results of this study could inform student engagement and retention offices and literature surrounding the sense of belonging for their FG student populations. Researchers recommend institutions replicate a similar study to assess sense of belonging in their FG student population.

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