

**If the Engagement Fits:  
Effective Educational Practices that Relate to College Students' Sense of Belonging**  
**Angie L. Miller & Amy K. Ribera, Indiana University Bloomington**  
**Amber D. Dumford, University of South Florida**

**Background**

- Student engagement, defined as student involvement in educationally purposeful activities (Kuh, 2001), generally has a beneficial impact on several important outcomes in higher education, such as persistence, learning, satisfaction, and graduation (Pascarella & Terenzini, 2005)
- Sense of belonging can have an impact on students' decisions to engage in academic and social activities (Hurtado & Carter, 1997)
- The current study sought to explore whether first-year and senior students' engagement influences their sense of belonging, particularly their connections with peers (peer belonging) and feelings of acceptance from members of the institution such as faculty, administrators, and student affairs professionals (institutional acceptance)

**Method**

- Data from the 2014 administration of the National Survey of Student Engagement (NSSE), which surveys students about a variety of topics concerning their collegiate experience, both inside and outside of the classroom
- More than 17,000 first-year and senior students at 44 colleges and universities were administered the core survey and an experimental item set on aspects of supportive peer environments
- Average institutional response rate was 32%
- Measures:
  - Relevant Engagement Indicators (EIs) from the core survey - Collaborative Learning, Discussions with Diverse Others, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment
  - Two sense of belonging scales derived from the experimental item set, using exploratory and confirmatory factor analysis – Peer Belonging and Institutional Acceptance
  - Demographic and institutional characteristics as control variables - first-generation, age, gender, race/ethnicity, enrollment type, online learning, STEM major, college grades, living situation, Greek affiliation, control type, MSI, selectivity, and Carnegie type
- Analysis: OLS regression models used Peer Belonging and Institutional Acceptance as outcome variables
  - Separate models for first-year and senior students
  - Demographic and institutional characteristics were entered as first step of models
  - Relevant EIs were entered as second step - Collaborative Learning, Discussions with Diverse Others, Quality of Interactions, and Supportive Environment on Peer Belonging; Student-faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment on Institutional Acceptance

**Results & Discussion**

- Results suggest that many relevant aspects of engagement do impact students' feelings of peer belonging and institutional acceptance, even after controlling for demographic and institutional characteristics.
  - Quality of interactions and supportive environment were consistently related to both peer belonging and institutional acceptance

- Student-faculty interaction and effective teaching practices were significant predictors of institutional acceptance for both first-years and seniors
  - Collaborative learning was a significant predictor of peer belonging for first-years as well as seniors
  - Discussions with diverse others was significantly related to peer belonging for first-years but not for seniors.
- The  $\Delta R^2$  values (see below) suggest a relatively large percent increase in explained variance, given the adjusted  $R^2$  values for the overall models.

### Limitations

- Sample may not be representative of all of all students enrolled in colleges and universities in the United States
- Relied on self-reported data, which may not always be completely objective
- The research design was unable to test for causal relationships between engagement and sense of belonging, only confirms whether or not they are associated

### References

- Hurtado, S., & Carter, D.F. (1997). Effects of college transition on perceptions of the campus racial climate on students' sense of belonging. *Sociology of Education*, 70(4), 324-345.
- Kuh, G.D. (2001). Assessing What Really Matters to Student Learning: Inside the National Survey of Student Engagement. *Change*, 33(3), 10-17, 66.
- Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students*. San Francisco, CA: Jossey-Bass.

**Table 1. Unique Impact of Selected Engagement Indicators<sup>1</sup> on Peer Belonging<sup>2,3</sup>**

	$\Delta R^2$	Sig.
First-year model	.170	***
Senior model	.166	***

<sup>1</sup> Collaborative learning, discussions with diverse others, quality of interactions, and supportive environment

<sup>2</sup> The dependent variables were standardized prior to entering the models.

<sup>3</sup> Controls for student demographics, college experiences, and institutional characteristics were included in the models. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**Table 2. Unique Impact of Selected Engagement Indicators<sup>1</sup> on Institutional Acceptance<sup>2,3</sup>**

	$\Delta R^2$	Sig.
First-year model	.239	***
Senior model	.287	***

<sup>1</sup> Student-faculty interaction, effective teaching practices, quality of interactions, and supportive environment

<sup>2</sup> The dependent variables were standardized prior to entering the models.

<sup>3</sup> Controls for student demographics, college experiences, and institutional characteristics were included in the models. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**For a full copy of the paper, please contact:**

Angie L. Miller, [anglmill@indiana.edu](mailto:anglmill@indiana.edu)

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