The Importance of Student Engagement and Experiential Learning in Undergraduate Education By Mark A. Brown^{1,2,3,4,5*} and Reagan E. Fitzke⁶

COLORADO STATE UNIVERSITY

DEPARTMENT OF CLINICAL SCIENCES, COLORADO STATE UNIVERSITY, 80523

INSTITUTE FOR LEARNING AND TEACHING, COLORADO STATE UNIVERSITY, 80523

³Department of Ethnic Studies, Colorado State University, 80523

⁴Epidemiology Section, Colorado School of Public Health, 80523

⁵Cell and Molecular Biology Program, Colorado State University, 80523

⁶Department of Psychology, Colorado State University, 80523

*Correspondence: Mark.Brown@colostate.edu; Tel.: (970) 491-5782

Abstract

if students do not perceive a sense of belonging, they are at greater risk of departing their institution prior to completing their

Introduction

Student engagement¹⁻⁶ and a sense of belonging⁹⁻¹⁴ have been well documented as critical contributors toward successful student retention programs. Higher education research indicates that when students do not perceive a sense of belonging or feel engaged, there is a significantly lower rate of retention. Experiential learning opportunities, such as mentored inquiry, are recognized among the high impact practices with the greatest efficacy among types of programs that seek to engage undergraduates^{7,8}. From improving self-efficacy¹⁵⁻²⁰ to students' sense of belonging 9-14, experiential learning has been repeatedly proven among positive predictors of academic success, retention, and career success/satisfaction.

Discussion

Experiential learning supports the development of practical problem-solving skills²¹⁻²³. The application of theory, from the classroom, afforded by mentored inquiry improves academic performance and students' ability to define career goals²¹. With experiential learning, undergraduates' regular interface and solutions to real-world issues, followed by contemplation and deliberation related to the results of their decisions, facilitate the growth and development of their understanding associated with their disciplines⁹. Experiential learning is especially appropriate for connecting complex issues across disciplines^{9,10}. The significance of student interactions with faculty mentors as a method of nurturing student engagement through mentored inquiry is highlighted among best practices for student engagement and retention initiatives 1-6. Once restricted primarily to STEM and a subset of social science disciplines, experiential learning and other forms of student engagement are now recognized as essential elements of all undergraduate education. In the past decade experiential learning has been integrated across the breadth of academic disciplines, and the early results are just the tip of the iceberg.

References

¹Tinto, V. (2017) "Through the eyes of students."

1 Into, V. (2017) "Ihrough the eyes of students." Journal of College Student Retention: Research, Theory & Practice. 19.3. Pg 254-269.
2 Trolian, T., Jach, E., Hanson, J., & Pascarella, E. (2016). "Influencing academic motivation: The effects of student-faculty interaction." Journal of College Student Development. 57.7. Pg 810–826.
3 Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). "Role of student faculty interactions in developing college students," academic self-concept.

developing college student faculty interactions in developing college students' academic self-concept, motivation, and achievement." Journal of College Student Development. 51.3. Pg 332–342.

4 Tinto, V. (2012) Completing college: Rethinking institutional action. Chicago: The University of Chicago

Upcraft, M., Gardner, J. & Barefoot, D. (Eds.). (2005). *Challenge and support: Creating climates for first year student success.* San Francisco: Jossey-Bass.

^oPascarella, E., Seifert, T., and Whitt, E. (2008).

Effective instruction and college student persistence: Some new evidence. In The Role of the Classroom in College Student Persistence. Braxton, J., ed. San Francisco: Jossey-Bass.

Kuh, G. (2018). What Really Makes a 'High-Impact' Practice High Impact? Inside Higher Education.

8Kuh, G. (2008, 2011). Student Success in College: The Promise of High Impact Practices. Association of American Colleges and Universities.

⁹Kuh, G., Kinzie, J., Schuh, J., & Whitt, E. (2005). Student Success in college: Creating Conditions that matter. San Francisco: Jossey-Bass.

¹⁰Bergen, J., & Milem, J. (1999). "The role of student involvement and perceptions of integration in a causal model of student persistence." *Research in Higher Education.* 40.6. Pg 641–664.

11Stebleton, M., Soria, K., Huesman, R. Jr., & Torres, V. (2014). "Recent immigrant students at

research universities: The relationship between campus climate and sense of belonging." *Journal of College Student Development.* 55.2. Pg 196–202.

¹²Strayhorn, T. (2008). "Fittin' in: Do diverse interactions with peers affect sense of belonging for black men at predominantly white institutions? of Student Affairs Research and Practice. 45.4. Pg 953-

13Tovar, E. (2013). A conceptual model on the impact of mattering, sense of belonging, engagement/involvement and socio-academic integrative experiences on community college intent to persist. Ph.D. Dissertation. Claremont Graduate University, Claremont, CA.

14Sidanius, J., Laar, C., Levin, S., & Sinclair, S. (2004). "Ethnic enclaves and the dynamics of social identity on the college campus: The good, the bad, and the ugly." Journal of Personality and Social Psychology. 87.1. Pg 96–110.

15Chemers, M., Hu, L., & Garcia, B. (2001). "Academic self-efficacy and first-year college student performance and adjustment." Journal of Educational Psychology. 93.1. Pg 55–64.

16Bong, M. (2001). "Role of self-efficacy and task-value in predicting college students' course performance and future enrollment intentions." Contemporary Educational Psychology. 26.4. Pg 553–570. 14Sidanius, J., Laar, C., Levin, S., & Sinclair, S.

and future enrollment intentions." Contemporary Educational Psychology. 26.4. Pg 553–570.

17Schunk, D. (1995). "Self-efficacy, motivation, and performance." Journal of Applied Sport Psychology.

7.2. Pg 112–137.

18Yuong, M., Brown-Welty, S., & Tracz, S. (2010). "The effects of self-efficacy on academic success of firstgeneration college sophomore students." Journal of College Student Development. 51.1. Pg 50–64.

19 Hall, J. M., & Ponton, M. K. (2005).
"Mathematics self-efficacy on college freshmen." Journal

of Developmental Education. 28.3. Pg 26–33.

²⁰Gore, P. Jr. (2006). "Academic self-efficacy as a

predictor of college outcomes: Two incremental validity

studies." Journal of Career Assessment. 14.1. Pg 92–111.

2 Boyd, MK and Wesemann, JL. (2009).

Broadening Participation in Undergraduate Research:
Fostering Excellence and Enhancing the Impact.

Washington, DC: Council on Undergraduate Research.

²²Kardash, C.M. (2000). "Evaluation of an undergraduate research experience: Perceptions ofundergraduate interns and their faculty mentors." Journal of Educational Psychology. 92.1. Pg 191-201.

23 National Research Council. Committee on

developments in the Science of Learning and Committee on Learning Research and Educational Practice. (2000). How People Learn: Brain, Mind, Experience, and School (expanded ed.) Washington, D.C.: National Academy