

SCULPT.

Scholarly & Creative Undergraduate Learning Partnership Team

Utah Valley University

<http://www.uvu.edu/sculpt/>

Inquiry-Based Learning as Pedagogy

SCULPT provides resources for:

- developing inquiry-based pedagogy,
- encouraging undergraduate research,
- developing programs,
- mentoring students,
- developing skills and traits in students,
- helping identify and pursue funding.

White Paper

White paper can be found at <http://bit.ly/formatted-sculpt-whitepaper>

This paper addresses the impact of undergraduate research and inquiry based learning on student engagement, learning, retention, and persistence to graduation with a focus on undergraduate research as an engaged pedagogy with application across all disciplines and all academic levels.

What we need to succeed:

- Shared teaching approach
- Faculty driven
- Resources & support
- Advocacy & promotion
- Incorporation at all levels
- Incorporation in all departments
- Direct student involvement

By creating a culture and structures supportive of IBL and by expanding the reach of IBL to all students on campus, UVU's dedication to student engagement, inclusion, rigor, and student success will be enhanced. We hope to expand and strengthen UVU tradition of IBL by working together.

IBL promotes all four of UVU's core themes and is centered on student success

Similar Projects

University of Michigan institutionalized research to improve retention. They found that the retention rates of African Americans increased from 65% to 81% with a degree of completion from 56.2% to 75.3%, they were more likely to go to graduate school--from 56% to 82%, and to pursue medical, law or Ph.D. degrees--from 56.6% to 78.5% (Gregerman, n.d.).

As one study found, "Most of the [Undergraduate Biology Research Program] group felt their research experience had an effect on their choice of career and level of career satisfaction. Over 80% believed that their undergraduate research experience had a substantial effect, including 46% who felt that it was critical in their career choice" (Yaffe, Bender, & Sechrest, 2014, p. 5).

The Raising Achievement in Mathematics and Science" (RAMS) project at Winston-Salem State University (WSSU), found that early and continued exposure to undergraduate research and related activities will benefit the students throughout their academic careers and beyond. The retention rate of RAMS scholars of 98.8% was maintained year 1, and also year 2, year 3, and year 4. In fact, less than 1% of the 88 RAMS Scholar program participants dropped out of the program due to GPA, research schedule problems, or change in full-time status. (Fakayode et al., 2014, p. 663-664)

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SCULPT is a resource for teaching through inquiry-based learning. Inquiry-based learning, inside and outside the classroom, is **research, scholarship, and creative activity.**

References

Fakayode, S. O., Yakubu, M., Adeyeye, O. M., Pollard, D. A., & Mohammed, A. K. (2014). Promoting undergraduate STEM education at a historically black college and university through research experience. *Journal of Chemical Education*, 91(5), 662-665. doi: 10.1021/ed400482b.

Gregerman, S. R. (n.d.) The Role of undergraduate research in student retention, academic engagement, and the pursuit of graduate education. Retrieved from the National Academy of Science website: <http://goo.gl/Hsm2Cs>

Yaffe, K., Bender, C. B., & Sechrest, L. (2014). How does undergraduate research experience impact career trajectories and level of career satisfaction: A comparative survey. *Journal of College Science Teaching*, 44(1), 25-33. Retrieved from <http://goo.gl/cDDdu7>

Current Membership

First name	Last name	Role	Department
Huda	Al-Ghaib	Member	Computer engineering
Jonathan	Anderson	Advisory Board	Dev Math
Shelly	Andrus	Support	Administrative assistant
Anne	Arendt	Co-chair	Technology Management
Francine	Baffa	Member	Autism studies
Eddy	Cadet	Member	Environ. Tech
Rob	Carney	Advisory Board	English & Lit
Steve	Chamberland	Member	Chemistry
Janet	Colvin	Member	Communication studies
David	Connelly	Advisory Board	History and Political Science
Susan	Cox	Member	Secondary Ed.
Andrew	Creer	Member	Exercise Science
Kathie	Debenham	Advisory Board	Dance
Eric	Domyan	Advisory Board	Biology
Sarah	Donohue	Advisory Board	Dance
Kris	Doty-Yells	Member	Behavioral Science
Mohammed	El-Saidi	Member	Finance & Economics
Steven	Emerman	Member	Hydrology
Dustin	Fife	Member	Library
Michael	Goode	Member	History
Merrill	Halling	Member	Chemistry
Ron	Hammond	Member	Sociology
Linda	Helt	Support	Administrative assistant
Jessica	Hill	Member	Behavioral Science
Daniel	Horns	Member	Earth Science
Joe	Jensen	Advisory Board	Physics & Astronomy
Benjamin	Johnson	Advisory Board	SLSS
Amir	Kia	Advisory Board	Finance & Econ
Olga	Kopp	Member	Biology
Christopher	Lee	Member	English
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