

Curriculum Vitae

Brandy Todd

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Brandy Todd
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EDUCATION

University of Oregon, Eugene, OR	Educational Leadership	2015, Ph.D.
University of Oregon, Eugene, OR	Planning, Public Policy & Management	2010, M.P.A
University of Oregon, Eugene, OR	Political Science & Sociology	2001, B.S., magna cum laude

PROFESSIONAL EXPERIENCE

2008–present, Director, Science Program to Inspire Creativity and Excellence (SPICE), University of Oregon, Eugene, OR

2006–present, Assistant Director of Administration, Oregon Center for Optical, Molecular, and Quantum Science, University of Oregon, Eugene, OR

PUBLICATIONS

Todd, B. (2017). Science Identity Archetypes in Girls. *Submitted*, Science Education.

Todd, B (2017). The Effect of an Informal Science Intervention on Middle School Girls' Science Affinities. *Submitted* – Journal of Research in Science Teaching

Todd, B. (2017). Exploring Girls' Science Affinities through an Informal Science Education Program. *Submitted* – Research in Science Education.

AWARDS, HONORS, AND MEMBERSHIPS

2015–present - American Educational Research Association, Member

2014 - David Bussman Scholarship, College of Education, University of Oregon, Eugene, OR

2014–present – American Association for the Advancement of Science, member

2010 - Pi Alpha Alpha Honor Society, Member

2010 - “Outstanding Officer of Administration,” University of Oregon, Eugene, OR

2006–2010 - National Council of University Research Administrators Member

SPONSORED PROJECTS

2016 – “360 Degree Science.” Principle investigator, *College of Arts and Sciences*, University of Oregon. \$2,500

2015–2016 – “Light, Engineering and Robotics: Building Girls Science Identities Through Hands on Science.” Principle investigator, *International Society for Optics and Photonics (SPIE)*. \$3,750

- 2014-2015 – “Identity formation and Gender Disparities in the Science, Technology, Engineering and Mathematics Disciplines.” Student Research Award, *Center for the Study of Women in Society*, University of Oregon. \$2500
- 2013-2014 – “Evaluating the Science Program to Inspire Creativity and Excellence.” Principle investigator, *College of Arts and Sciences*, University of Oregon. \$6,000
- 2012 – “Resources for the Science Program to Inspire Creativity and Excellence.” principle investigator, *International Society for Optics and Photonics (SPIE)*. \$3,600
- 2012 – “SPICE: Science Outreach, the University Mission, and Building K-20 Bridges.” Principle investigator, *College of Arts and Sciences*, University of Oregon. \$5,000
- 2010 – “Supporting the Seasons of Science: Resources for the Science Program to Inspire Creativity & Excellence.” Co-principle investigator, *Office of Institutional Equity and Diversity*, University of Oregon. \$12,000
- 2010 – “Laserfest: SPICE and 50 Years of the Laser.” Co-principle investigator.” *American Physical Society*, \$8,000
- 2008 – “Optical Science Discovery Program: Pre-College Outreach as a Means to Recruit and Retain Women in the Physical Science.” Co-principle investigator, *Office of Institutional Equity and Diversity*, University of Oregon. \$12,000

INVITED TALKS

- 2017 – “Chicks Dig Science.” *Science on Tap*, Via Productions Science Café. May 10, 2017, Vancouver, WA
- 2016 – “Informal STEM Education.” Presentation at Portland State University, College of Education, May 10th, 2016. Host William Becker
- 2014 – “Science is . . .” *Girls Rule Conference*.” Keynote Speaker, as SLUG Queen. March 15, 2014
- 2014 – “Teaching Science for Everyone.” *Eugene Rotary Club*, January 28, 2014

CONFERENCE ACTIVITY

- 2017 “Girls’ Science Identities: Using an Informal Outreach Program to Build Theory.” Poster presentation at the *American Educational Research Association Annual Meeting*, April 2017, San Antonio, TX.
- 2017 “Impacts of an Informal Science Outreach Program on Girls Science Affinities Over Time.” Paper presentation at the *American Educational Research Association Annual Meeting*, April 2017, San Antonio, TX.
- 2017 “Lessons from the Trenches: Nuts & Bolts of Running a Successful Outreach Program.” Presentation at *Science Talk NW* conference, January 26-27th, Portland, Oregon.
- 2016 “Little Scientists: Identity, Self-Efficacy and Attitudes Toward Science in a Girls Summer Camp.” Paper presentation at the *American Educational Research Association Annual Meeting*, April 2016, Washington, DC.
- 2014 “It’s Not Rocket Science: Girls, Identity Formation and STEM.” paper presentation at the *Pacific Sociological Association Meeting*, March 2014

2014 “Informal Science Education and Science Identity Formation in Middle School Girls.” a poster at the *American Academy of Arts and Sciences* 2014 Annual Meeting, February 2014

2013 “Making it Fun, Hands on and Explosive!” a presentation to the *Oregon Chapter of the American Association of Physics Teachers*, March 2013.

CAMPUS OR INVITED TALKS

2014 “Girls, Identity Formation and STEM” paper presentation for the *Addressing Inclusion and Inequality in Education Panel, Graduate Research Forum*, University of Oregon. March

2012 “Informal Science Outreach as a Mechanism for Reducing the Gender Gap in STEM.” *Colloquium presentation for the Department of Educational Methodology, Policy and Leadership*, University of Oregon. October 2012.

2010 “The Effects of Permanent Partial Disability Payments on Claim Disposition.” Poster presented at *Graduate Student Research Forum: Crossing Borders*. April 30, 2010.

2008 “Results of the survey on graduate education in physics at the University of Oregon.” presentation to the *Graduate Student Seminar in Physics*. January 2008.

TEACHING EXPERIENCE

2014-2017 – *Informal science education training program*. Developed a program for training graduate and undergraduate students in informal science communication. Completion of the program required XX hours of training, practicum, an exam, and a practical examination.

2012-2017 - *SPICE Science Fair Project Development Workshops*. Developed a series of workshops for K-8 classrooms. Trained 20+ undergraduate instructors annually and coordinated with teachers to deliver workshops to ten area classrooms.

2010 – *Science Policy*. Lead Instructor. Mixed graduate and undergraduate course. Public Policy, Planning, and Management.

2009, 2010 - *Proposal Development & Writing Workshops*. Developed and co-taught graduate level workshops in proposal development for the natural sciences.

RESEARCH EXPERIENCE AND COLLABORATIONS

2017 – *Developing a common measure of Science Affinities*. Role: Principle Investigator. Collaborators: Martin Storcksdiek, Brianna Keys, Kari O’Connel, Oregon State University.

2017 – *Motivation, reflection, and achievement in introductory physics course*. Role: Principle Investigator. Collaborator: Jenefer Husman, University of Oregon.

2013-2017 – *Science Affinities in a Girls’ Science Summer Camp*. Mixed methods study. Lead team of 4 graduate students for three years annually. Role: Principle Investigator.

2013 – Efficacy and concept mastery in an introductory physics course for majors. Role: Principle investigator. Collaborator: Benjamin McMorran (physics), University of Oregon.

SERVICE TO PROFESSION

2017 – Reviewer, Journal of Engineering Education

2016 – Reviewer, Oregon Sea Grant proposals

2016 – Reviewer, American Educational Research Association, Special Interest Group – Science Teaching and Learning session, Annual Meeting 2017

DEPARTMENT/ UNIVERSITY SERVICE

2016-2017 – Consortium for the Improvement of Professional Education. Ex Officio Member

2013-present – Member, Science, Technology, Engineering, and Mathematics, Careers, Outreach and Education center (STEM CORE)

COMMUNITY INVOLVEMENT & OUTREACH

2014 - *Science Factory Children's Museum*. Using SLUG Queen persona to promote local non-profit science museum at special events such Mad Scientist's Halloween, Meet-A-Scientist Day, and the Annual Fundraising Gala

2013 - *Eugene SLUG Queen*. Queen Professor Doctor Mildred Slugwak Dresselhaus. Unofficial City Ambassador. Broadening visibility of science education in the community. Hosting numerous outreach and fundraising events in support of STEM education.

2012-2017 – *University of Oregon Science and Invention Fair*. Organizing all aspects of annual science fair. 79 participants from twelve schools. 200+ attendees. March 2014, April 2015

2011-2017 – *Annual UO Science Open House*. Founded and organized the annual UO science open house bringing together more than 15 community outreach groups and programs to present 24 interactive activity tables to the public. 400-550 attendees annually.

TEACHING AREAS/COURSES PREPARED TO TEACH

Science and Education Policy

Educational Policy Analysis

Mixed Methods Data Analysis

Applied Introductory Statistical Methods

Statistics, Science and Media

Program Evaluation

Gender and Science Education