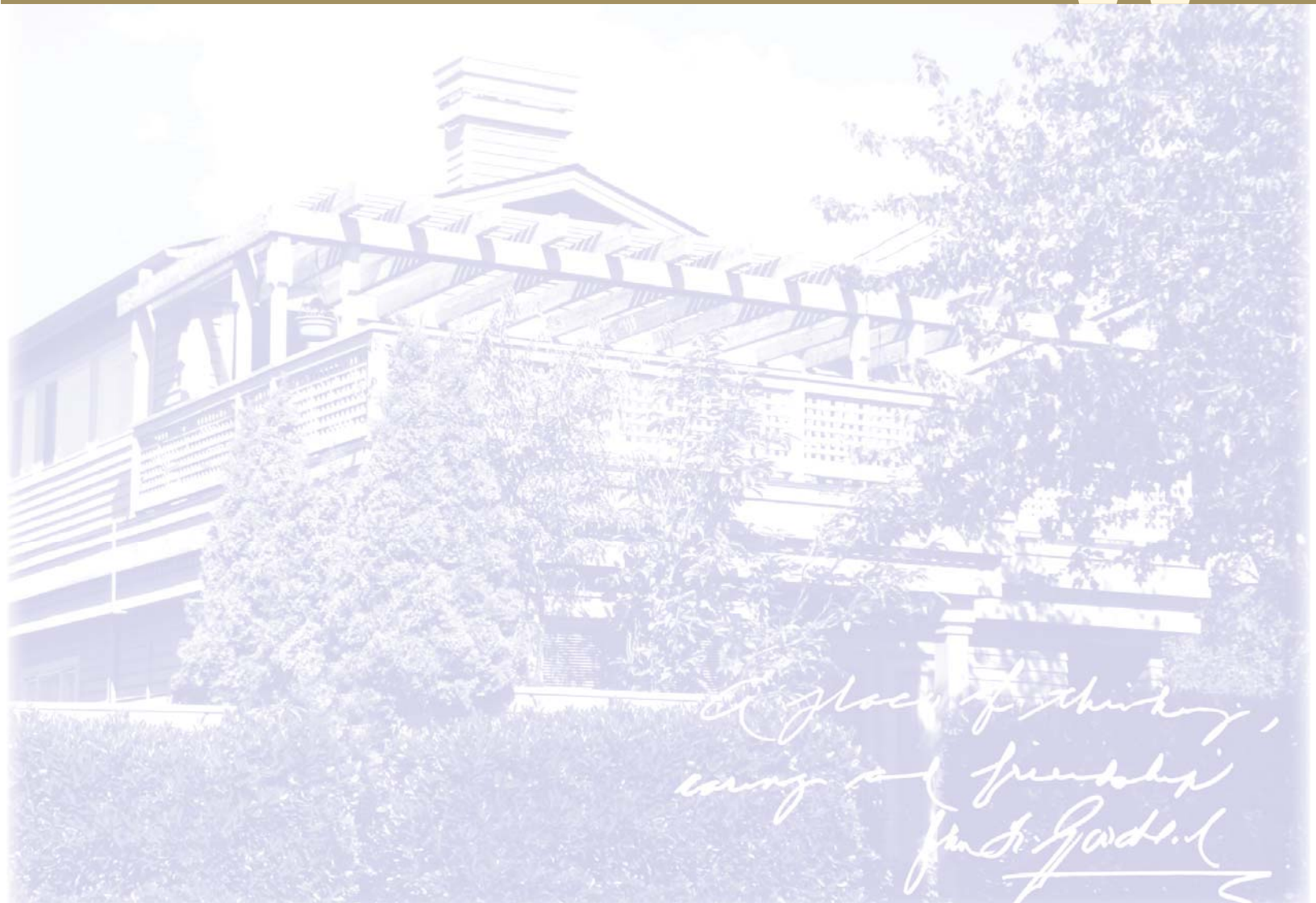


ANNUAL REPORT 2017

Goodlad Institute for Educational Renewal



UNIVERSITY of WASHINGTON | BOTHELL

WELCOME

A message from the director

Now in our eleventh year at the University of Washington, the Goodlad Institute for Educational Renewal continues the collaborative work of promoting innovation in schools and the preparation of educators. The Institute focuses on renewal from within school communities as the best hope for ensuring that each of the nation's young people receives an education that opens doors to life's opportunities. As we pursue existing and new opportunities, the Institute seeks ideas, partners, and projects with potential for strengthening democratic community and equity in schooling. This report covers the period October 1, 2016 through September 30, 2017.

Tom Bellamy
Director



who we are

Launched in 2008, the Goodlad Institute for Educational Renewal is chartered as a University-wide program and administered by UW Bothell within the Office of the Vice Chancellor for Academic Affairs. The Institute is located on the UW Bothell campus in Husky Hall and provides work and meeting space for the Institute's principal investigators, project personnel, and graduate students. Dr. Tom Bellamy serves as the founding director of the Goodlad Institute and Kellie Holden serves as the part-time Institute Administrator.

The Goodlad Institute for Educational Renewal honors the remarkable seventy-year career of John Goodlad and structures a collaborative framework within which his work can continue. Perhaps best known for celebrating the central importance of education in a social and political democracy, Dr. Goodlad was equally concerned with practical implementation, showing how actual school practices fall short of democratic ideals and then recommending how those gaps might be bridged.

The Goodlad Institute has grown out of over two decades of work by Dr. John Goodlad's Institute for Educational Inquiry (IEI). The IEI articulated an enduring vision of the mission of public education in a democracy and successfully pursued that agenda through an integrated strategy of coordinated local demonstrations, critical inquiry, leadership development, and professional communications.



our mission

The Goodlad Institute for Educational Renewal exists to promote the public democratic purposes of education by supporting and studying processes for continuous renewal in public schools, universities, and their communities.

our vision

By developing examples, ideas, leaders, and networks that highlight the public democratic purposes of education, the Goodlad Institute aims to advance understanding of what high-quality education means in a democracy and how it can be achieved.



**LEAD.
COLLABORATE.
COMMUNICATE.
DISSEMINATE.**

our operating principles

Leading by Example

The core of the Institute's strategy is a belief in the power of positive examples to spread ideas and shape strategy. Big ideas first must be translated into daily action, and tested in the rush of practice and the crosscurrents of local priorities. Once imbued with the credibility of positive results, they can then be brought to the national conversation.

Collaboration for Simultaneous Renewal

The local examples of excellence at the center of the Institute's strategy seldom develop in isolation and are rarely sustained without corresponding changes in other parts of the education system. Consequently, the Institute's work reflects a belief that powerful local examples involve boundary-spanning partnerships that simultaneously support and challenge each entity to improve results for children and youth. This is true within the education profession, because PK-12 schools, community colleges, and universities are mutually dependent. The Institute makes particular effort to engage partners on all three UW campuses and in other universities, and to continue advancing the collaborative work initiated by John Goodlad with the National Network for Educational Renewal (NNER).

Communication and Dissemination

In order to create a conducive national context for pursuing the public democratic purposes of education, the Institute emphasizes dissemination of information that supports, informs, and encourages collaboration among professional, policy, and local civic leadership for school renewal. Local demonstrations provide the foundation for new ways of thinking, but these must then be translated into news stories, books, articles, presentations, and other media that test and extend new possibilities.

OUR TEAM

staff, principal investigators, and affiliates

Administration

Institute Director: Tom Bellamy
Institute Administrator: Kellie Holden
Office Assistant: Amy Pitt

ECSEL Program

Sr Lecturer/Coordinator: Wendy Iwaszuk
Internship Supervisor: Sue Dedrick
Internship Supervisor: Susan Mather

OpenSTEM Research

Principal Investigator Carrie Tzou
Co-PI, Research Faculty Theresa Horstman
Research Faculty Blakely Tsurusaki
Research Faculty Gavin Tierney
Research Scientist Elizabeth Starks
Research Scientist Perrin Teal-Sullivan
Research Coordinator Nancy Price

Story Time STEM

Principal Investigator Tony Smith (Story Time STEM)
Principal Investigator Allison Hintz (Plus-Mathematics)

PROJECT SPONSORS

- Institute for Educational Inquiry
- ECMC Foundation
- Montclair State University
- National Science Foundation
- National Endowment for the Arts
- Northshore School District
- Spencer Foundation
- U. S. Department of Education
- University of Alaska Fairbanks
- University of Florida
- University of Washington Tacoma
- Washington Higher Education Coordinating Board
- Washington Office of the State Superintendent of Public Instruction

PRIORITY AREAS AND PROGRAM DEVELOPMENT

Supporting Teacher Leadership for Curriculum Renewal

Curriculum and instruction are at the forefront of many current concerns – how to broaden the school curriculum beyond the narrow focus of state tests, how to increase achievement in mathematics and science, how to make learning more equitable, and so on. While such renewal involves simultaneous change in many different organizations and cultures that affect schooling, actual implementation depends most centrally on teachers changing their daily practices

Preparing and Supporting School Leaders

Working at the nexus of community demographics, local expectations for schools, professional priorities, and public policy requirements, principals have experienced perhaps the most rapid changes among education professionals. An increasing number of children with limited English proficiency live in poverty or experience disabilities; they create learning challenges at the same time that public policies and district practices hold administrators accountable for immediate results. Each new proposal for reform simply underscores anew the critical role that principals play in any effort to improve school quality.

Supporting Renewal in P-12 Schools

Public policies that emphasize achievement in core academic subjects for all children are juxtaposed with high levels of childhood poverty, limited English proficiency, and disabilities, which creates a challenging context for school renewal. And the process of continuing renewal becomes even more difficult when educators and their publics are committed to the broader purposes of education in a democracy.

Renewing the Education of Teacher Educators

This priority area focuses on preparation and support of teacher educators who are skilled contributors to inquiry and practice. Partnerships are so central to the preparation of new teachers that high-quality teacher education depends on university faculty who can work across PK-12 and university boundaries, stimulating changes in each institution with the knowledge and challenges of the other. Renewal in PK-12 and higher education is supported when teacher educators can work effectively in the cultures of both schools and universities, modeling and fostering an inquiry stance that supports continuous improvement.

Promoting Civic-Professional Collaboration for School Renewal

In broad terms, the need for local civic-professional collaboration for school renewal arises from the limitations of external efforts to impel educational reform through policies and funding. While external governance has its place, public schooling is also a very local endeavor that must constantly adjust to the aspirations and priorities of students and their families and communities. When reform efforts ignore or try to overpower local priorities and differences, implementation is, at best, tenuous, and often lasts only until the next issue or group takes the spotlight. But with so many competing local needs, it is often difficult to focus collective attention on young people's learning, much less to reach agreement on what is needed and to take action toward improvement.

OUR PROJECTS

teacher development partnerships

Pathways to Teaching

Principal Investigator Dr. Brad Portin, professor in the School of Educational Studies, received funding from the ECMC Foundation for a project, “Pathways to Teaching,” which aims to identify and demonstrate what is necessary to scale renewed teacher preparation for diverse populations that are grounded in deeper learning content and strategies applied K-20. Through partnerships with Everett School District, Marysville School District, and Everett Community College, Dr. Portin and his team will continue to engage in the work of creating pathways for diverse candidates to teaching. The one year project is supported at \$149,922 beginning September 2016.

PLUSS-Mathematics

Dr. Allison Hintz, Associate Professor in the School of Educational Studies, received a subaward from the Spencer Foundation and the University of Edinburgh for her project, “PLUSS-Mathematics,” which will investigate the role of teacher listening in supporting students’ verbalized struggles with mathematical ideas during whole class mathematical discussions. The project aims to advance understandings of the complex ways that teachers need to be able to listen in order to better support all students, and by providing teacher educators and teachers with a framework to use as a tool for improving teachers’ listening practices. This one-year award provides \$15,395 beginning July 1, 2016.

Story Time STEM:

Integrating Literacy, Math, and Science through Children’s Literature

Drs. Allison Hintz and Antony Smith are engaged in two integrated research and development projects with community partners.

The first project, **Story Time STEM**, led by PI Tony Smith, associate professor in the School of Educational Studies, includes the development and implementation of a set of toolkits to support mathematical learning among young children through read-alouds and meaningful discussion of mathematical concepts in the context of children’s literature. Kits will span three content areas including Counting and Cardinality, Operations and Algebraic Thinking, and Geometry. These resources will be generated in close partnership with the King County Library System and Everett Public Schools and will be accompanied by professional learning opportunities for educators. This project is supported at \$29,454 by Washington STEM through June 29, 2018.

The second project, **Partnerships for Early Learning**, is a project of INSPIRE, the UW Seattle College of Education’s effort to advance student learning by designing and implementing systems, resources, and professional development opportunities for and with educators and school leaders. Now in year two, PEL continues to support collaborative work between the University of Washington Bothell, INSPIRE, King County Library System, and YMCA Powerful Schools. The purpose of PEL is to: develop a set of resources for shared reading experiences exploring math and science concepts that can be utilized across informal and formal learning settings for young children (pre-K-3rd grade); design and implement professional development for educators to support these learning experiences; gauge the impact of these resources on young children’s learning in literacy, mathematics, and science. This project is supported by the Boeing Foundation.

Restructuring Pre-service Preparation for Innovative Special Education

This was the sixth and final year of a special education program improvement effort awarded to Montclair State University's project, "Restructuring Pre-service Preparation for Innovative Special Education." The grant supported the development of a secondary-level dual-certification program linking special education with certification in mathematics and science. A sub-award allowed the Goodlad Institute to coordinate annual "critical friend" visits that engage faculties from across the NNER in cross-setting program reviews.



leadership projects

Collaboration for Effective Educator Development, Accountability, and Reform

The Goodlad Institute is one part of a national partnership project to provide assistance to states, districts, and universities to improve educator preparation. "Collaboration for Effective Educator Development, Accountability, and Reform" (CEEDAR) is led by the University of Florida with a sub-award to the Institute of \$22,500 during each year of the five-year project, through December 2017. The Goodlad Institute provides assistance in identifying useful practices and policies for preparation of school leaders who support all students' learning.

Enhancing Capacity for Special Education Leadership

A statewide program to lead innovation in administrator preparation, the "Enhancing Capacity for Special Education Leadership" (ECSEL) project was funded through the WA State Office of the Superintendent of Public Instruction (OSPI) as a one-year pilot program. Initial funding of \$171,000 launched the program with a cohort of 10 candidates. OSPI has approved continued funding for the ECSEL program for the past four years, providing enhanced supports for aspiring and new administrators of local special education programs. The OSPI ECSEL project is now funded at \$100,000 per year.

With initial support from OSPI, a collaboration among five campuses of the University of Washington and Washington State University and the state's Education Service Districts, ECSEL was awarded funding to continue and expand Washington's first preparation program specifically designed to prepare local administrators of special education. This grant from the U. S. Department of Education provides \$1.25 million over five years beginning January 1, 2014.

OUR PROJECTS



Several projects in the Institute form the **OpenSTEM Research** group. With an emphasis on learning beyond the school setting, these projects affirm fundamental goals of the Institute while creating a visible focus for work that broadens the access to STEM learning. Led by Dr. Carrie Tzou, OpenSTEM Research is committed to expanding opportunities for all students to engage with STEM learning environments across the settings and time points of their lives, including schools, libraries, other community settings, and from K-12 through workforce development. The

group conducts research on supporting STEM-linked identities in young people by studying the design of learning environments that connect everyday activities and cultural and linguistic community resources with technology-enhanced STEM learning. In collaboration with partner organizations, the group also designs curriculum resources and conducts professional development for STEM teachers and informal practitioners.

Badges for College Credit

A National Science Foundation project, “Badges for College Credit: Motivating learning in informal science programs through a digital badge system,” seeks to bridge informal and formal learning opportunities in partnership with the Future of Flight Foundation, the Pacific Science Center’s Mercer Slough Environmental Education Center, and the Seattle Aquarium. PI Associate Professor Carrie Tzou leads the effort to develop college credit pathways for high school students who engage substantially in the work of these informal science institutions. The project began in October 2013 with a total budget of \$1.47 million and will complete the one-year no-cost extension on September 30, 2018.

Project STEAM

Dr. Carrie Tzou continues her fifth and final year on a National Science Foundation collaborative research grant “Project STEAM: Integrating art with science to build science identities among girls.” The project aims to inspire art-interested girls to enter STEM careers through a series of activities and the overall approach will help build “science identities” among art-interested girls who are normally under-represented in STEM careers. This grant provided \$275,521 over four years (plus a one-year no-cost extension) beginning September 2012. The project was completed on August 31, 2017.

Backpacks for Science Learning

Dr. Carrie Tzou continues the work on her NSF funded project, “Backpacks for Science Learning: Leveraging family expertise to transform homework as boundary objects across learning contexts.” The project aims to create a model for connecting family learning and classroom science instruction around the Next Generation Science Standards at scale. Dr. Tzou aspires to contribute knowledge, curriculum materials, and a model of connecting home and school science instruction to ongoing efforts in the field of science education, family learning, and support of the NGSS. This grant provides \$2.47 million and will conclude August 31, 2019.

Fostering STEAM

PI Assistant Professor Blakely Tsurusaki received funding from the National Science Foundation’s AISL program for her broad implementation project titled “Fostering STEAM through ISL professional development.” Fostering STEAM partners with the University of Alaska Fairbanks to build on the outcomes of the successful AISL project “Project STEAM” led by Dr. Carrie Tzou which ended August 31, 2017. Through this past work, the collaborative team articulated a set of STEAM design principles that incorporate effective practices for broadening participation in science which informal educators can adopt and incorporate into their STEAM learning activities. This grant provides \$1.25 million over five years beginning September 1, 2017.

Digital Badges for STEM Learning

PI Theresa Horstman, assistant research professor in the School of Educational Studies and Co-PI on the Badges for College Credit grant, submitted a broad implementation proposal to the National Science Foundation titled, "Designing digital badge ecologies for STEM learning: Supporting nondominant youths' curation of achievements, identities, and interests into professional and academic pathways." This work will build upon the outcomes of the successful AISL project, "Badges for College Credit," led by PI Carrie Tzou and the Digital Badges for STEM Education Project, a CAREER grant from Katie Davis at UW Seattle's iSchool. In partnership with faculty from UW Seattle and UW Tacoma, the Pacific Science Center's Mercer Slough Environmental Education Center, the Seattle Aquarium, and a local school district, PI Horstman will lead the effort to disseminate a model of design and implementation of digital badges that address deep learning in informal spaces, validity of badges internally across program goals and users, and external validity of badges outside of the program. If funded, this project will begin October 1, 2018 with a total budget of \$3 million over five years.

selected institute products

Bellamy, T., Nordengren, C., Portin, B., & Hopkins, P. (2013). *What internship experiences support principal-candidate learning?* Paper presented at the University Council on Educational Administration Annual Conference, Indianapolis, Indiana, November 9, 2013.

Bellamy, T. (2016). *A Research-Informed Design for Preparing Principals: What We Could Do Differently and Why It Might Work*. Berkeley, CA: Wing Institute.

Feldman, D., Smith, A. T., & Waxman, B. *Why we drop out: Understanding and disrupting student pathways to leaving school*. New York: Teachers College Press.

Feldman, B., Smith, A. T., & Waxman, B. (2014). *"I'm no good in math:" Student perspectives on math struggles and dropping out of school* (Report No. 2). Retrieved from <http://www.wsohp.org/project-reports--updates.html>

Designing Youth-Community Partnerships

Dr. Blakely Tsurusaki submitted a proposal, "Designing Youth-Community Partnerships to Engage Youth in Environmental Science Research and Communication," to the National Science Foundation's AISL program in collaboration with the University of Michigan-Ann Arbor, University of New Hampshire, and the Pacific Science Center. The project team aims to design, refine, implement, and study a youth-community partnership model for engaging youth in environmental science research in out-of-school settings. The team's goal for this project is to cultivate these partnerships and study their impacts on youth interest and engagement in science, science-related learning, and science-linked identities. If funded, this project will provide \$3 million over five years beginning July 1, 2018.

GLOBE - DRK-12

Dr. Blakely Tsurusaki submitted a proposal, "Designing GLOBE science shops to cultivate student-community partnerships," to the National Science Foundation's DRK-12 program in collaboration with the University of Michigan-Ann Arbor, University of New Hampshire, and University of Idaho. The project proposes the design, implementation, and study of GLOBE (Global Learning and Observations to Benefit the Environment) "science shops" in an effort to cultivate student-community partnerships. This four-year \$1.36 million proposal was set to begin July 1, 2017 but did not receive funding.

Feldman, B., Smith, A. T., & Waxman, B. (2013). *Pathways to dropping out parts one - four*. Retrieved from <http://www.wsohp.org/project-reports--updates.html>

Hintz, A., & Smith, A. T. (2016). *How hungry was the caterpillar? Using student work to understand and support mathematical learning*. *Educational Leadership* 73(7) (online).

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(continued on reverse)

selected institute products (cont.)

Exploring concepts through discussion. *Oklahoma Reader*, 50(2), 6-11.

Horstman, T.; Tierney, G. & Tzou, C. (April 2017). Analysis of educational achievement systems for equity and access. Poster presented at National Association for Research in Science Teaching (NARST). San Antonio, TX.

Horstman, T.; Tierney, G. & Tzou, C. (October 2016). Analysis of educational achievement systems for equity and access. Presentation at Refiguring Games (ReFIG). Montreal, CA.

Horstman, T. & Tzou, C. (April 2016). Achievement Systems and Learning: Methods for Analyzing Digital Badge Systems. In Horstman, T.; Gamrat, C.; & Bell, A. (co-chairs). *Democratizing Learning through Digital Badges: Theoretical and Analytical Frameworks to Advance Design and Research*. American Educational Research Association (AERA).

Horstman, T.; Tzou, C.; Nelson, S.; Schooley, I.; Goertz, A. (June 2015). Digital Badges for College Credit: Motivating Learning in Informal Science Programs Through Digital Badges. *Digital Media and Learning (DML)*. Los Angeles, CA.

Lorton, J., Bellamy, T., Reese, A., & Carlson, J. (2013). Understanding schools as high reliability organizations: An exploratory examination of teacher and school leader perceptions of success. *Journal of School Leadership*, 23(6), 1047-1082.

Portin, B., Johaneck, M., Korach, S., & King, C. (2013, November). Designing, evaluating, and improving educational leadership training. Special Session sponsored by The Wallace Foundation at the annual meeting of the University Council for Educational Administration, Indianapolis, IN, November 7, 2013.

Smith, A. T. (2014, March). *Washington Student Oral Histories Project: Pathways to dropping out and the influence of mathematics as a factor*. Gear Up Regional Professional Development Session, Wenatchee, WA.

Smith, A. T., & Waxman, B. (2013, June). How do we keep our students in School? Listening to and learning from disconnected youth. Paper presented at 'Closing the Opportunity Gap,' a conference hosted by the Center for Strong Schools, University of Washington Tacoma, Tacoma, WA.

Smith, A. T., & Feldman, D. (2013, June). Pathways to dropping out: The Washington Student Oral Histories Project. Research and report presented to the Washington State School Directors' Association, Olympia, WA.

Stein, M., Kinder, D., Rasplika, W., Rolf, K., & Bellamy, T. (in press). Project RTI. In J. Goeke, K. Kosar, & K. Mitchum (Eds.), *Redesigning Special Education Teacher Preparation: Challenges and Solutions*. New York: Routledge/Taylor and Francis.

Tzou, C. & Horstman, T. (August 20-22, 2014). Badges for College Credit (BCC): Motivating learning in informal science programs through digital badge systems. The National Science Foundation (NSF) Advancing Informal STEM Learning (AISL) Program. Washington, D.C.

Tzou, C., Conner, L., Guthrie, M., & Pompea, S. (March 2014). *Colors of Nature: Connecting evolutionary biology, optical science, and arts education to promote STEM-related identity work in middle school girls*. C. Tzou (organizer), STEAM: Incorporating art in STEM education to promote identity formation and engagement in scientific practices. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Pittsburgh, PA.

Tzou, C., Conner, L., Guthrie, M., & Pompea, S. (2014). *Colors of Nature: Connecting science and arts education to promote STEM-related identity work in middle school girls*. In Polman, J. L., Kyza, E., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., and D'Amico, L. (Eds.). (2014). *The International Conference of the Learning Sciences (ICLS) 2014: Learning and becoming in practice* (3: pp1555-1556). Boulder, CO: International Society of the Learning Sciences.



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