Sally PeiWen Wu

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EDUCATION

University of Wisconsin-Madison, Madison, WI
Ph.D. in Educational Psychology   Expected Aug 2019
Thesis: The effects of constructing and refining drawings to learn STEM content in visual representations
Committee: Martina A. Rau (Advisor), Mitchell J. Nathan, Matthew Berland, Martha W. Alibali, Daniel M. Bolt

M.S. in Educational Psychology   Dec 2016
Thesis: Drawing Prompts Enhance Students' Learning with Conventional Visual Representations in STEM
Relevant Coursework: Regression Models in Education, Quasi-Experimental Design, Qualitative Research in Learning Environments, Structural Equation Modeling, Hierarchical Linear Modeling, Random Trials in Education Policy, Educational Policy Across the Disciplines, Human-Computer Interaction

Haverford College, Haverford, PA
B.A. in Psychology   May 2011
Minor: Educational Studies
Thesis: Nonverbal communication: The effects of vocal and social cues on deception perception

AWARDS AND GRANTS

Institute of Education Sciences, U.S. Department of Education   Aug 2015 – Jul 2018
Fellow, Interdisciplinary Training Program for Educational Sciences
$96,000 stipend

Gordon Research Conference/National Marine Sanctuary Foundation   Aug 2017
$1345 travel award

Gordon Research Conference   Aug 2015
$845 travel award

PUBLICATIONS

Wu, S. P. W., & Rau, M. A. (in press). Effectiveness and efficiency of adding drawing prompts to an interactive educational technology when learning with visual representations. *Learning and Instruction*. Available: http://www.sciencedirect.com/science/article/pii/S095947521630113X

Wu, S. P. W., & Rau, M. A. (2017). How technology and collaboration promote formative feedback: A role for CSCL research in active learning interventions. In B. K. Smith, M. Borge, E. Mercier & K. Y. Lim (Eds.), Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017 (Vol. 1, pp. 279-286). Philadelphia, PA: International Society of the Learning Sciences. Available: https://repository.isls.org/handle/1/242.

Rau, M. A., & **Wu, S. P. W.** (2017). Educational technology support for collaborative learning with multiple visual representations in chemistry. In B. K. Smith, M. Borge, E. Mercier & K. Y. Lim (Eds.), *Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017* (Vol. 1, pp. 79-86). Philadelphia, PA: International Society of the Learning Sciences. Available: https://repository.isls.org/handle/1/217.

Rau, M. A., & **Wu, S. P. W**. (2015). ITS support for conceptual and perceptual processes in learning with multiple graphical representations. In C. Conati, N. Heffernan, A. Mitrovic, & F. Verdejo (Eds.), *Proceedings of the 17th International Conference of Artificial Intelligence in Education* (pp. 398-407).

Sahni, S., **Wu, S.**, & Martinez, A. (Mar 2014). *A Targeted Study of the DR K–12 Gaming and Simulation Education Projects in DR K-12*. Community for Advancing Discovery Research in Education. Available: http://cadrek12.org/spotlight-games-simulations.

Sahni, S., Caven, M., **Wu, S.**, Dellarocco, N., Minner, D., & Martinez, A. (Oct 2013). *A Targeted Study of the DR K–12 Engineering Education Projects*. Community for Advancing Discovery Research in Education. Available: http://cadrek12.org/targeted-study-dr-k-12-engineering-education-projects.

Minner, D., Ericson. E., **Wu, S.**, & Martinez, A. (Nov 2012). *Compendium of Research Instruments for STEM Education PART 2: Measuring Students' Content Knowledge, Reasoning Skills, and Psychological Attributes.* Community for Advancing Discovery Research in Education. Available: http://www.cadrek12.org/resources/compendium-research-instruments-stem-education-part-ii-measuring-students-content-knowledg.

PRESENTATIONS

Wu, S. P. W. (October 2017). *The effects of drawing prompts on learning with visual representations*. Talk presented at the 2017 Learning Sciences Symposium. Madison, WI: University of Wisconsin-Madison.

Wu, S. P. W. & Rau, M. A. (October 2017). *Drawing prompts enhance students' learning with conventional visual representations in STEM*. Roundtable talk presented at the 2017 Learning Sciences Graduate Student Conference. Bloomington, IN: Indiana University.

Wu, S. P. W. & Rau, M. A. (August 2017). *How students learn through generating their own visual representations*. Poster presented at the 2017 Gordon Research Conference on Visualizations in Science and Education. Lewiston, ME: Bates College.

Wu, S. P. W. & Rau, M.A. (April 2017). *How technology and collaboration promote formative feedback in active learning interventions.* Poster presented at the 2017 Wisconsin Alumni Research Foundation Discovery Challenge. Madison, WI: Wisconsin Institute of Discovery.

Wu, S. P. W. & Rau, M. A. (Feb 2017). *Adaptive support for collaborative connection making among multiple visual representations in a chemistry ITS.* Poster presented at the 2017 Wisconsin Center for Education Research. Madison, WI: Wisconsin Institute of Discovery.

Wu, S. P. W. (October 2016). *Drawing prompts enhance students' learning with conventional visual representations in STEM*. Talk presented at the 2016 Learning Sciences Symposium. Madison, WI: University of Wisconsin-Madison.

Wu, S. P. W. & Rau, M. A. (October 2016). *Drawing prompts enhance students' learning with conventional visual representations in STEM*. Poster presented at the 2016 Learning Sciences Graduate Student Conference. Chicago, IL: University of Illinois-Chicago.

Bollom, M., Kennedy K., Laudadio, E., Moore, J. W., Oxtoby, L., Rau, M. A., **Wu, S.,** & Ziebarth, K. (July 2016). *Collaborative learning in advanced general chemistry*. Poster presented at the 2016 Biennial Conference on Chemical Education (BCCE). Greeley, CO: University of Northern Colorado.

Rau, M. A., **Wu, S. P. W**, & Schubert, J. (June 2016). *Affordances of physical representations with human tutors and virtual representations with computer tutors in chemistry*. Poster presented at the 12th Annual International Conference of the Learning Sciences, Singapore.

Bollom, M., Kennedy K., Laudadio, E., Moore, J. W., Oxtoby, L., Rau, M. A., **Wu, S**., & Ziebarth, K. (May 2016). *Collaborative learning in introductory chemistry*. Poster presented at the 2016 University of Wisconsin-Madison Teaching and Learning Symposium. Madison, WI: University of Wisconsin-Madison.

Wu, S. P. W. & Rau, M.A. (April 2016). *The effectiveness of generating drawings when learning with visual representations in chemistry*. Poster presented at the 2016 Wisconsin Alumni Research Foundation Discovery Challenge. Madison, WI: Wisconsin Institute of Discovery.

Wu, S. P. W. & Rau, M. A. (Feb 2016) *The effects of prompting students to draw when learning with visual representations.* Poster presented at the 2016 Wisconsin Center for Education Research. Madison, WI: Wisconsin Institute of Discovery.

Wu, S. P. W. & Rau, M. A. (August 2015). *Examining student-generated drawings of multiple representations to illustrate Scientific Understanding.* Poster presented at the 2015 Gordon Research Conference on Visualizations in Science and Education. Lewiston, ME: Bates College.

Martinez, A., **Wu, S.,** Didriksen, H. & Bozzi, L. (2013). *Insight into the state of evaluation of science, technology, engineering, and mathematics (STEM) education research and development projects: Lessons from the Discovery Research K-12 Program*. Presented at the American Evaluation Association Conference, Washington, DC.

TEACHING EXPERIENCES

Galin Education, Madison, WI
ACT, SAT, and Math Tutor   Jun 2015 – Jun 2017
  o Improved average test scores of 16 high school students by 30 percentiles

Citizen Schools, Newark, NJ
Curriculum and Training VISTA   Aug 2011 – Aug 2012
  o Developed 10+ project-based apprenticeship curricula for middle school students

Haverford College, Haverford, PA
Teaching Assistant in Experimental Methods in Psychology   Jan 2011 – May 2011
  o Conducted review sessions on Statistics and Experimental Design

RESEARCH EXPERIENCES

University of Wisconsin-Madison, Madison, WI
Graduate Research Assistant   Aug 2014 – May 2015
  o Developed materials and tested effects in an intelligent tutoring system for chemistry
  o Managed 12 undergraduate research assistants in data collection and analyses of eye-tracking, interview, drawing, and log data

Abt Associates, Cambridge, MA
Research Assistant   Aug 2012 – Apr 2014
  o Conducted quantitative and qualitative analyses of innovative STEM education projects
  o Managed recruitment, communications, and data collection of more than 50 schools

SERVICE

- **Vice President**, Asian American Association of Graduate Students (University of Wisconsin-Madison), 2017-Present
- **Member**, The International Society of the Learning Sciences (ISLS), 2016-Present
- **Head of Academic Committee,** Educational Psychology Student Association (University of Wisconsin-Madison), 2015-Present
- **Reviewer**, 2016 Learning Sciences Graduate Student Conference (Chicago, IL), Oct 2016
- **Co-head**, Subcommittee in Learning Sciences (University of Wisconsin-Madison), 2015-2016
- **Co-facilitator**, Brown Bag series, Delta Program for Teaching and Learning (University of Wisconsin-Madison), Fall 2015