# Eugene Judson

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#### **Academic Degrees**

Ed.D. Curriculum and Instruction, Science Education

2002

Doctoral Dissertation: Relationships among Teacher Instructional Beliefs, Attitudes toward Technology, and Practice of Technology Integration

Arizona State University, Tempe, AZ

M.Ed. Educational Media & Computers

1997

Master's Thesis: Integrating Technology into the Middle School Science Classroom: Development, Implementation, and Analysis of a Technology Integrated Science Unit Arizona State University, Tempe, AZ

B.A. Secondary Science Education

1990

2014 - present

2008 - 2014

2003 - 2004

Accreditation in physics and general science Arizona State University, Tempe, AZ

# Work Experience

Associate Professor of Science Education and Educational Policy Assistant Professor of Science Education

Mary Lou Fulton Teachers College

Arizona State University at the Polytechnic Campus, Mesa, Arizona

Lead Researcher 2006 - 2008

School Effectiveness Division

Arizona Department of Education, Phoenix, Arizona

Research Scientist / Program Manager 2004 - 2006

Center for Research on Education in Science, Mathematics, Engineering,

Technology (CRESMET)

Arizona State University, Tempe, Arizona

Director of Academic and Instructional Support

School Effectiveness Division

Arizona Department of Education, Phoenix, Arizona

Work Experience (continued)	
Evaluator and School District Liaison	1999 - 2003
Arizona Collaborative for Excellence in the Preparation of Teachers (ACEPT)	
Arizona State University, Tempe, Arizona	
Seventh and Eighth Grade Science Teacher	1993 - 1999
Brimhall Junior High School	1773 1777
Mesa Public Schools, Mesa, Arizona	
Seventh Grade Science Teacher	1991 - 1993
Palo Verde Middle School,	1,,,1
Washington Elementary Schools, Phoenix, Arizona	

# **SCHOLARSHIP**

# **Summary**

As of January 1, 2021, my publications were cited 3,457 times. My h-index is 21 (21 papers cited at least 21 times) and my i10-index is 32 (32 papers cited at least 10 times), see Figure 1 and Table 1. Across my career, I have published with 24 co-authors including many student collaborators (students denoted with an asterisk\* in following entries).

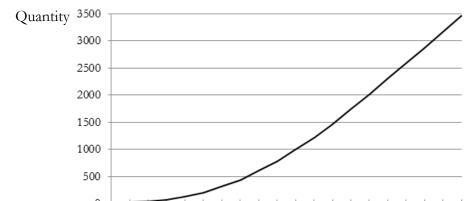


Figure 1. Cumulative Citations to Publications

Table1.	Summary of	Ouantity o	of Products du	ring Career	Phases	(updated March 2021	)
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Type of Product	Before becoming an Assistant Professor	As an Assistant Professor	As an Associate Professor	Total
Published peer-reviewed journal articles	9	8	18	35
as first or sole author	6 of 9	8 of 8	15 of 18	29 of 35
Editorially reviewed journal articles	-	2	1	3
Book chapters	2	-	-	2
White papers & technical and/or evaluation reports	17	5	4	26
Professional video production	-	-	1	1
Refereed presentations at meetings of professional organizations	14	17	51	82

As available, journal metrics that follow are from Scopus, SCImago, Cabell's Directory of Publishing, and/or Journal Citation Reports, unless otherwise noted.

# Peer-Reviewed Journal Articles, in Review and in Press

[2] **Judson, E.**, & Ross, L. (revised and resubmitted per editor's request). Effects of gender and underrepresented minority status on faculty workload recommendations. *Journal of Women and Minorities in Science and Engineering*.

Submitted May 17, 2020; Revise & Resubmit editor email received November 16, 2020; Resubmitted December 12, 2020; as of March 1, 2021, awaiting

CiteScore: 1.65, H Index: 20, SCImago Journal Rank: 0.47

[1] **Judson, E.** (in re-write following editor's request for revision and resubmission). Variations among Next Generation Science Standards and other NRC Framework-based science standards: Differences in layout, typography, and what teachers notice. *Journal of Research in Science Teaching*.

Submitted December 9, 2020; Revise & Resubmit editor email received February 9, 2020 CiteScore: 7.2, H Index: 121, SCImago Journal Rank: 3.01, acceptance rate: 10-15%, impact factor: 3.870

#### Peer-Reviewed Journal Articles, Published

[35] **Judson, E.**, Hayes, K. N., & Glassmeyer\*, K. (2020). What influences development of science standards? *Science Education*, 104(1), 50–74. <a href="https://doi.org/10.1002/sce.21549">https://doi.org/10.1002/sce.21549</a>
Contribution/Effort – Judson: 70%, Hayes: 20%, Glassmeyer: 10%
CiteScore: 6.02, H Index: 108, SCImago Journal Rank: 2.01, acceptance rate: 11%, impact factor: 3.50

- [34] **Judson, E.,** & Glassmeyer\*, K. (2020). What school administrators think about computer science counting as a math or science graduation requirement. *Computers in the Schools, 37*(2), 74–91. <a href="https://doi.org/10.1080/07380569.2020.1751528">https://doi.org/10.1080/07380569.2020.1751528</a> *Contribution/Effort Judson: 80%, Glassmeyer: 20% CiteScore: 1.9, H Index: 23, SCImago Journal Rank: 0.38, acceptance rate: 25%,*
- [33] **Judson, E.**, Hayes, K. N., & Glassmeyer\*, K. (2020). Understanding how educators make sense of content standards. *American Journal of Educational Research*, 8(10), 812–821. *Contribution/Effort – Judson: 50%, Hayes: 30%, Glassmeyer: 20%*ISSN: 2327-6126, acceptance rate: 60% per editor (high acceptance rate, open access journal)
- [30] Hoyt, S., Ross, L., **Judson, E.**, Krause, S., & Mayled, L. (2020). Analyzing student achievement to measure the effectiveness of professional development for active learning strategies in the engineering classroom. *Journal of Higher Education Theory & Practice*, 20(11), 123–136. <a href="https://doi.org/10.33423/jhetp.v20i11.3769">https://doi.org/10.33423/jhetp.v20i11.3769</a> *Contribution/Effort –Hoyt: 45%*, Ross: 35%, Judson: 10%, Krause: 5%, Mayled: 5% ISSN: 2158-3595, acceptance rate: 20% per editor, H Index: 3
- [30] **Judson, E.**, & Glassmeyer\*, K. (2019). Are teachers and schools ready to accept computer science as a graduation requirement? *Journal of Research on Technology in Education*, 51(4), 311–325. <a href="https://doi.org/10.1080/15391523.2019.1624661">https://doi.org/10.1080/15391523.2019.1624661</a>
  Contribution/Effort Judson: 80%, Glassmeyer: 20%
  CiteScore: 4.5, H Index: 60, SCImago Journal Rank: 1.19, acceptance rate: 17%, impact factor: 1.585, official ISTE journal
- [29] **Judson, E.**, Bowers\*, N. L., & Glassmeyer\*, K. (2019). Recruiting and encouraging students to complete Advanced Placement science and math courses and exams: Policies and practices. *Journal for the Education of the Gifted.* 42(3), 243–265. <a href="https://doi.org/10.1177%2F0162353219855679">https://doi.org/10.1177%2F0162353219855679</a>

  Contribution/Effort – Judson: 80%, Bowers: 10%, Glassmeyer: 10%

  CiteScore: 1.9, H Index: 31, SCImago Journal Rank: 0.71, acceptance rate: 17%, impact factor: 1.171, official journal of The Association for the Gifted (division of the Council for Exceptional Children)

[28] **Judson, E.** (2019). Learning stations in college classrooms. *College Teaching*, 67(4), 250–251. http://dx.doi.org/10.1080/87567555.2019.1650707

CiteScore: 1.2, H Index: 38, SCImago Journal Rank: 0.3, impact factor: 0.60

- Judson, E., Ross\*, L., & Glassmeyer\*, K. (2019). How research, teaching, and leadership roles are recommended to male and female engineering faculty differently. Research in Higher Education, 60(7), 1025–1047. <a href="https://doi.org/10.1007/s11162-018-09542-8">https://doi.org/10.1007/s11162-018-09542-8</a>
  Contribution/Effort Judson: 70%, Ross: 25%, Glassmeyer: 5%
  CiteScore: 3.7, H Index: 80, SCImago Journal Rank: 1.78, acceptance rate: 10%, impact factor: 2.205
- [26] Ross\*, L., & **Judson, E**. (2018). Gender-based differences in faculty members' view and use of student-centered learning strategies. *International Journal of Gender, Science and Technology, 9*(3), 205–220.

  \*\*Contribution/Effort Ross: 60%, Judson: 40%,

Contribution/Effort — Ross: 60%, Judson: 40%, Acceptance rate: 33% (from editor)

- [25] **Judson, E.**, Ross\*, L., Middleton, J. A., & Krause, S. J. (2017). Measuring engineering faculty views about benefits and costs of using student-centered strategies. *International Journal of Engineering Pedagogy*, 7(2), 65–78. Available from <a href="http://online-engineering.org/dl/iJEP/iJEP\_vol7\_no2\_2017\_S.pdf">http://online-engineering.org/dl/iJEP/iJEP\_vol7\_no2\_2017\_S.pdf</a>
  Contribution/Effort Judson: 70%, Ross: 20%, Others: 10%
  CiteScore: 0.9, SCImago Journal Rank: 0.243
- [24] **Judson, E.** (2017). How science and math teachers address classes of different levels: Advanced Placement (AP), honors and regular. *The High School Journal*, 100(4), 226–249. <a href="https://doi.org/10.1353/hsj.2017.0010">https://doi.org/10.1353/hsj.2017.0010</a>
  Acceptance rate: 20%
- [23] **Judson, E.** (2017). Science and math Advanced Placement (AP) exams: Growth and achievement over time. *The Journal of Educational Research, 110*(2), 209–217. <a href="https://doi.org/10.1080/00220671.2015.1075188">https://doi.org/10.1080/00220671.2015.1075188</a>

  CiteScore: 2.4, H Index: 71, SCImago Journal Rank: 0.8, acceptance rate: 20%, impact factor: 1.197
- [22] **Judson, E.**, Ernzen\*, J., Krause, S., Middleton, J. A., & Culbertson, R. J. (2016). How engineering standards are interpreted and translated for middle school. *Journal of Pre-College Engineering Education Research 6*(1), 1–10. <a href="https://doi.org/10.7771/2157-9288.1121">https://doi.org/10.7771/2157-9288.1121</a> *Contribution/Effort Judson: 75%, Ernzen: 15%, Others: 10% CiteScore: 2.6, H Index: 8, SCImago Journal Rank: 1.067*

[21] **Judson, E.**, & Hobson\*, A. L. (2015). Growth and achievement trends of Advanced Placement (AP) exams in American high schools. *American Secondary Education*, 43(2), 59–76. *Acceptance rate:* 25%, JSTOR journal

- [20] **Judson, E.**, (2014). Effects of transferring to STEM-focused charter and magnet schools on student achievement. *The Journal of Educational Research*, 107(4), 255–266. https://doi.org/10.1080/00220671.2013.823367

  CiteScore: 2.4, H Index: 71, SCImago Journal Rank: 0.8, acceptance rate: 20%, impact factor: 1.197
- [19] **Judson, E.** (2014). Addressing teachers' feelings of lack of control over policy issues. Journal of Education and Training Studies, 2(1), 1–10. <a href="https://doi.org/10.11114/jets.v2i1.171">https://doi.org/10.11114/jets.v2i1.171</a>
  Acceptance rate: 50%, open access
- [18] Alvarado, C., & **Judson, E.** (2014). Using celebrations to recruit women to computer science. *Communications of the ACM* (Association for Computing Machinery), 57(3), 70–77. <a href="https://doi.org/10.1145/2500883">https://doi.org/10.1145/2500883</a> *Contribution/Effort Alvarado: 60%, Judson: 40%*CiteScore: 9.8, H Index: 203, SCImago Journal Rank: 1.2, acceptance rate: 11-14%, impact factor: 4.55
- [17] **Judson, E.** (2013). The relationship between state accountability practices and time allocated for science in elementary schools. *Science Education*, 97(4), 621–636. <a href="https://doi.org/10.1002/sce.21058">https://doi.org/10.1002/sce.21058</a>

  CiteScore: 6.02, H Index: 108, SCImago Journal Rank: 2.01, acceptance rate: 11%, impact factor: 3.50
- [16] **Judson, E.** (2013). Development of an instrument to assess and deliberate on the integration of mathematics into student-centered science learning. *School Science and Mathematics*, 113(2), 56–68. <a href="https://doi.org/10.1111/ssm.12004">https://doi.org/10.1111/ssm.12004</a>
  Acceptance rate: 20%, official journal of School Science and Mathematics Association
- [15] **Judson, E.** (2012). Learning about bones at a science museum: Examining the alternate hypotheses of ceiling effect and prior knowledge. *Instructional Science*, 40(6), 957–973. https://doi.org/10.1007/s11251-011-9201-6

  CiteScore: 3.8, H Index: 68, SCImago Journal Rank: 1.27, acceptance rate: 20%, impact factor: 1.734
- [14] **Judson, E.** (2012). When science counts as much as reading and mathematics: An examination of differing state accountability policies. *Education Policy Analysis Archives, 20*(26), 1–26. <a href="https://doi.org/10.14507/epaa.v20n26.2012">https://doi.org/10.14507/epaa.v20n26.2012</a> *H Index: 44, SCImago Journal Rank: 0.66, acceptance rate: 18%*

[13] **Judson, E.** & Kulinna, P. H. (2012). Recruiting and retaining girls and women to pursue STEM careers and play sports: Comparing challenges and lessons learned. *International Journal of Gender, Science and Technology*, 4(2), 191–207.

Acceptance rate: 33% (from editor)

- [12] Judson, E. (2011). The impact of field trips and family involvement on mental models of the desert environment. International Journal of Science Education, 33(11), 1455–1472. <a href="https://doi.org/10.1080/09500693.2010.495758">https://doi.org/10.1080/09500693.2010.495758</a>
  CiteScore: 2.8, H Index: 102, SCImago Journal Rank: 1.06, acceptance rate: 32%, impact factor: 1.485
- [11] **Judson, E.** (2010). Improving technology literacy: Does it open doors to traditional content? *Educational Technology Research & Development*, 58(3), 271–284. <a href="https://doi.org/10.1007/s11423-009-9135-8">https://doi.org/10.1007/s11423-009-9135-8</a> *CiteScore: 5.5, H Index: 84, SCImago Journal Rank: 1.32, acceptance rate: 10%, impact factor: 2.303*
- [10] **Judson, E.** (2010). Science education as a contributor to adequate yearly progress and accountability programs. *Science Education*, 94(5), 888–902.

  <a href="https://doi.org/10.1002/sce.20396">https://doi.org/10.1002/sce.20396</a>

  CiteScore: 6.02, H Index: 108, SCImago Journal Rank: 2.01, acceptance rate: 11%, impact factor: 3.50</a>
- [9] **Judson, E.** (2007). Retaking a high stakes mathematics test: Examination of school interventions and environments. *American Secondary Education*, 36(1), 15–30. *Acceptance rate:* 25%, JSTOR journal
- [8] **Judson, E.** & Lawson, A. E. (2007). What is the role of constructivist teachers within faculty communication networks? *Journal of Research in Science Teaching*, 44(3), 490–505. <a href="https://doi.org/10.1002/tea.20117">https://doi.org/10.1002/tea.20117</a>
  CiteScore: 7.2, H Index: 121, SCImago Journal Rank: 3.01, acceptance rate: 10-15%, impact factor: 3.870
- [7] **Judson, E.** (2006). How teachers integrate technology and their beliefs about learning: Is there a connection? *Journal of Technology and Teacher Education*, 14(3), 581–597.

  Acceptance rate: 10-19%, official journal of the Society for Information Technology and Teacher
- [6] Adamson, S.L., Burtch, M., Cox III, F., **Judson, E.**, Turley, J. B., Benford, R., and Lawson, A.E. (2003). Reformed undergraduate instruction and its subsequent impact on secondary school teaching practice and student achievement. *Journal of Research in Science Teaching*, 40(10), 939–957. <a href="https://doi.org/10.1002/tea.10117">https://doi.org/10.1002/tea.10117</a> *CiteScore: 7.2, H Index: 121, SCImago Journal Rank: 3.01, acceptance rate: 10-15%, impact factor: 3.870*

[5] Judson, E. & Sawada, D. (2002). Learning from past and present: Electronic response systems in college lecture halls. Journal of Computers in Mathematics and Science Teaching, 21(2), 167–181. Acceptance rate: 10-19%, official journal of the Association for the Advancement of Computing in Education (AACE)

- [4] **Judson, E.** & Sawada D. (2002). Tracking transfer of reform methodology from science and math college courses to the teaching style of beginning teachers of grades 5-12. *Journal of Mathematics and Science: Collaborative Explorations*, 5, 189–207.
- [3] Lawson, A. E., Benford, R., Bloom, I., Carlson, M. P., Falconer, K. F., Hestenes, D. O., **Judson, E.**, Piburn, M. D., Sawada, D., & Wyckoff, S. (2002). Reforming and evaluating college science and mathematics instruction. *Journal of College Science Teaching.* 31(6), 388 393. *An official journal of the National Science Teachers Association (NSTA)*
- [2] Sawada, D., Piburn, M., **Judson, E.**, Falconer, K., Benford, R. & Bloom, I. (2002). Measuring reform practices in science and mathematics classrooms: The Reformed Teaching Observation Protocol. *School Science and Mathematics*, 102(6), 245–253. <a href="https://doi.org/10.1111/j.1949-8594.2002.tb17883.x">https://doi.org/10.1111/j.1949-8594.2002.tb17883.x</a>
  Acceptance rate: 20%, official journal of School Science and Mathematics Association
- [1] **Judson, E.** & Sawada, D. (2000). Examining the effects of a reformed junior high school science class on students' math achievement. *School Science and Mathematics*. 100(8), 19–25. https://doi.org/10.1111/j.1949-8594.2000.tb17330.x

  Acceptance rate 20%, official journal of School Science and Mathematics Association

# **Editorially Reviewed Journal Articles**

- [3] Culbertson, R., Gamez Warble, K., & **Judson, E.** (2015). Physics Teacher Education Pathways at Arizona State University. *Bulletin of the American Physical Society*, 60.
- [2] **Judson, E.** (2011) Business class: Learning from the mistakes of business. American School Board Journal, 198(12), 28–30.

  Official journal of the National School Board Association, circulation: 27,249. This journal's audience is comprised of district-level decision makers, publishing in this journal increases visibility and credibility among those leaders.
- [1] **Judson, E.**, Schwartz, P., Allen, K., & Miel, T. (2008). Rescuing distressed schools. *American School Board Journal*, 195(4), 42–43.

Official journal of the National School Board Association, circulation: 27,249. This journal's audience is comprised of district-level decision makers, publishing in this journal increases visibility and credibility among those leaders.

# **Book Chapters**

- [2] **Judson, E.** & Sawada, D. (2006). Audience response systems: Insipid contrivances or inspiring tools? In D.A. Banks (Ed.) *Audience response systems in higher education: Applications and cases* (pp. 26–39). Hershey, PA: Information Science Publishing.
- [1] Middleton, J. A., Sawada, D., **Judson, E.** Bloom, I., & Turley, J. (2002). Relationships build reform: Treating classroom research as emergent systems. In L. D. English (Ed.), *International Handbook of Research in Mathematics Education* (pp. 409–431). Mahwah, NJ: Lawrence Erlbaum Associates.

# White Papers, Technical Reports, Evaluation Reports

- [26] **Judson, E.** (2020). Recruiting and retaining women in STEM majors at Southern New Hampshire University's College of Engineering, Technology, and Aeronautics (CETA). Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Manchester, NH.
- [25] **Judson, E.** (2018). Recruiting and retaining women in computer science at City University of New York
   Hunter College. Prepared in collaboration with the National Center for Women and
  Information Technology (NCWIT). New York City, NY.
- [24] **Judson, E.** (2015). Recruiting and retaining women in engineering and computer science at Portland State University. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Portland, OR.
- [23] **Judson, E.** (2015). Recruiting and retaining women in engineering and computer science at Texas A&M. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). College Station, TX.
- [22] **Judson, E.** (2013). Recruiting and retaining women in computer science at Oregon State University. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Corvallis, OR.
- [21] **Judson, E.** (2013). Recruiting and retaining women in computer science at Arizona State University. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Tempe, AZ.

[20] **Judson, E.** (2010). Recruiting and retaining women in computer science Harvey Mudd College. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Claremont, CA.

- [19] **Judson, E.** (2009). Recruiting and retaining women in computer science at University of California Berkeley. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Berkeley, CA.
- [18] **Judson, E.** (2009). Recruiting and retaining women in computer science at University of California Santa Cruz. Prepared in collaboration with the National Center for Women and Information Technology (NCWIT). Santa Cruz, CA
- [17] **Judson, E.** (2007). Technology literacy gains and corresponding content area growth from fourth- to fifth-grade and seventh- to eighth-grade. Arizona Department of Education, Phoenix, AZ.
- [16] **Judson, E.** (2007). Developing a streamlined method to determine areas of greatest need using AIMS mathematics assessment data. Arizona Department of Education, Phoenix, AZ.
- [15] **Judson, E.** (2007). Suborbital Center for Excellence Mobile Lab: Project evaluation report. New Mexico State University, Las Cruces, NM.
- [14] **Judson, E.** (2007). Sonoran Desert Center/Deer Valley Unified School District riparian project summative evaluation report. Sonoran Desert Center, Phoenix, AZ.
- [13] **Judson, E.** (2007). The Houston Urban Learning Initiatives in a networked community (HU-LINC): Case study. Westat, Rockville, MD.
- [12] **Judson, E.** (2007). Arizona-Texas Consortium for Alternative and Renewable Energy Technologies (ATCARET): Project evaluation report. College of Technology and Innovation, Arizona State University. Polytechnic Campus, Mesa, AZ.
- [11] **Judson, E.** (2006). The value of external assistance: An examination of the Arizona Department of Education's ASSIST Coach and Solutions Team model. Arizona Department of Education, Phoenix, AZ.
- [10] **Judson, E.** (2005). Arizona STEP to success: Student Talent Expansion Grant: Evaluation report. College of Technology and Innovation, Arizona State University, Polytechnic Campus, Mesa, AZ.

[9] **Judson, E.**, & Garcia-Dugan, M. (2004). The effects of bilingual education programs and structured English immersion programs on student achievement: A large-scale comparison. Arizona Department of Education, Phoenix, AZ.

- [8] **Judson, E.** (2004). *State interventions of failing schools: Takeovers and reconstitutions.* Report prepared for the Arizona Department of Education, Phoenix, AZ.
- [7] **Judson, E.** (2004). Teachers are key to academic achievement. Arizona Department of Education, *Superintendent of Public Instruction Reports to Educators*, 1(7).
- [6] **Judson, E.** (2004). It's about standards-based teaching not teaching to the test. Arizona Department of Education, *Superintendent of Public Instruction Reports to Educators, 1*(5).
- [5] **Judson, E.** (2004). Supporting teachers equals retaining teachers. Arizona Department of Education, *Superintendent of Public Instruction Reports to Educators*, 1(4).
- [4] **Judson, E.** (2004). The answers are in the silence: An examination of wait time. Arizona Department of Education, *Superintendent of Public Instruction Reports to Educators*, 1(3).
- [3] **Judson, E.** (2003). Leadership makes a difference in student achievement. Arizona Department of Education, *Superintendent of Public Instruction Reports to Educators*, 1(1).
- [2] Piburn, M., Sawada, D., Turley, J., Falconer, K., Benford, R., Bloom, I., & **Judson, E.** (2000). Reformed teaching observation protocol (RTOP): Reference manual. (ACEPT Technical Report No. IN00-3). Tempe, AZ: Arizona Collaborative for Excellence in the Preparation of Teachers.
- [1] Sawada, D., Piburn, M., Turley, J., Falconer, K., Benford, R., Bloom, I., & **Judson, E.** (2000). Reformed teaching observation protocol (RTOP): Training guide. (ACEPT Technical Report No. IN00-2). Tempe, AZ: Arizona Collaborative for Excellence in the Preparation of Teachers.

#### **Professional Video Production**

[1] Klucsarits, P., & **Judson, E.** (Producers) / Pease\*, G., & Lopez\*, D. (Directors). (2020). STEM dreams in motion: Episode 1 – Tshijik Kabash [Film]. https://tinyurl.com/STEMDreams

Produced as first in series of role model videos featuring resettled people who are STEM professionals in the United States and as a proof-of-concept for NSF ITEST proposal.

#### **Refereed Presentations**

[82] **Judson, E.** (2021, April). How biology and physics faculty guide female and URM faculty toward leadership, research, and teaching. Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, virtual conference.

- [81] **Judson, E.**, Glassmeyer\*, K., (2021, April). *Challenges to implementing computer science flex credit policies in high schools.* Paper presented at the annual meeting of the American Educational Research Association (AERA), virtual conference.
- [80] **Judson, E.,** Ross, L., Krause, S. J., Hjelmstad, K. D., & Hamilton Mayled, L. (2020, June). How a STEM faculty member's gender affects career guidance from others: Comparing engineering to biology and physics. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), virtual conference.
- [79] Glassmeyer\*, K., Ross, L., **Judson, E.**, Krause, S. J., & Hamilton Mayled, L. (2020, June). Exploratory factor analysis of approaches to teaching inventory (ATI): Use in an evidence-based faculty development program for promoting active learning. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), virtual conference.
- [78] Ross, L., Krause, S. J., Hjelmstad, K. D., **Judson, E.,** Hamilton Mayled, L., & Culbertson, R. J. (2020, June). Review and assessment of an evidence-based professional development program to promote active learning pedagogical practices in the classroom. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), virtual conference.
- [77] Hoyt, S., Hamilton Mayled, L., **Judson, E.**, Krause, S., Hjelmstad, K. D., Ross, L., Culbertson, R. J., & Middleton, J. A. (2020, June). *Analyzing student achievement to measure the effectiveness of active learning strategies in the engineering classroom.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), virtual conference.
- [76] Hoyt, S., Hamilton Mayled, L., Krause, S., Hjelmstad, K. D., Hjelmstad, K. L., Fletcher, C., & **Judson, E.** (2020, June). *Extending faculty development through a sustainable community of practice*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), virtual conference.
- [75] **Judson, E.**, & Ross, L. (2020, April). Are gender and ethnicity considerations part of faculty workload recommendations? Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA. (conference canceled)
- [74] Ross, L., **Judson, E.**, & Glassmeyer\*, K. (2020, April). Faculty workload recommendations in STEM: The role of gender and ethnicity. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA. (conference canceled)

[73] **Judson, E.**, & Ross, L. (2020, March). How biology and physics faculty guide female and URM faculty toward leadership, research, and teaching. Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Portland, OR. (conference canceled)

- [72] **Judson, E.**, Hjelmstad, K. L., & Hamilton Mayled, L. (2019, June). *Supporting engineering instruction through classroom observation and coaching*. Workshop presented at the annual meeting of the American Society for Engineering Education (ASEE), Tampa, FL.
- [71] Hamilton Mayled, L., Ross\*, L., Krause, S. J., Hjelmstad, K. D., & **Judson, E.** (2019, June). Impact of evidence-based active learning faculty development on low-SES engineering students' achievement. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Tampa, FL.
- [70] Ross\*, L., Glassmeyer\*, K., Fletcher Honeycutt, C., **Judson, E.**, Krause, S. J., Middleton, J. A. . . . Culbertson, R. J., (2019, June). *Examining effects of an evidence-based professional development program on student achievement*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Tampa, FL.
- [69] Ross\*, L., Hamilton Mayled, Krause, S. J., **Judson, E.**, Hjelmstad, K. D., Middleton, J. A., Culbertson, R. J. . . . Hoyt, S. (2019, June). *Scaling and assessment of an evidence-based faculty development program for promoting active learning pedagogical strategies*. Poster presented at the annual meeting of the American Society for Engineering Education (ASEE), Tampa, FL.
- [68] **Judson, E.**, Glassmeyer\*, K., & Hayes, K. N., (2019, April). *Science standards developers: What were they thinking about?* Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Baltimore, MD.
- [67] Ross\*, L., **Judson, E.**, Krause, S., Culbertson, R., Hjelmstad, K., Middleton, J. (2018, November). *Examining shifting faculty beliefs and practices through an active learning professional development program.* Paper presented at the Association for the Study of Higher Education Conference (ASHE), Tampa, FL.
- [66] Culbertson, R., Krause, S., Hjelmstad, K., **Judson, E.**, L., Middleton, J., Ankeny, C. . . . Hjelmstad, K. (2018, October). *Evidence-based faculty development: Scaling a model for more effective teaching and learning in undergraduate education.* Paper presented at the annual meeting of the American Physical Society, Salt Lake City, UT.
- [65] **Judson, E.**, Ross\*, L., Hjelmstad, K. L., Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L. H., & Middleton, J. A. (2018, June). *The effects of professional development and coaching on teaching practices.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.

[64] Ross\*, L., **Judson, E.**, Ankeny, C., Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L., Glassmeyer\*, K., Middleton, J. A., & Hjelmstad, K. L. (2018, June). *Is there a connection between classroom practices and attitudes towards student-centered learning in engineering?* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.

Best Paper, Professional Interest Council V, ASEE 2018 Best Paper, Continuing Professional Development Division, ASEE 2018

- [63] Hjelmstad, K. L., Hjelmstad, K. D., Krause, S. J., Mayled, L., **Judson, E.**, Ross\*, L., Culbertson, R. J., Middleton, J. A., Ankeny, C. J., & Chen, Y. (2018, June). Facilitating change in instructional practice in a faculty development program through classroom observations and formative feedback coaching. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- [62] Krause, S. J., Hjelmstad, K. D., **Judson, E.**, Middleton, J. A., Culbertson, R. J., Ankeny, Ross\*, L., Mayled, L., & Hjelmstad, K. L. (2018, June). *Assessing faculty and organizational change in a professional development program with workshops and disciplinary communities of practice*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- [61] Middleton, J. A., **Judson, E.**, Krause, S. J., Culbertson, R. J., Hjelmstad, K. D., Mayled, L., Ross\*, L., Hjelmstad, K. L., Chen, Y. (2018, June). *Social network analysis of faculty connections in a multi-year professional development program.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- [60] Krause, S. J., **Judson, E.**, Hjelmstad, K. D., Middleton, J. A., Culbertson, R. J., Ankeny, C. J., Chen, Y., Ross\*, L., Mayled, L., & Hjelmstad, K. L. (2018, June). *A multidiscipolinary professional development program that shifts faculty attitudes and practice toward evidence-based instructional strategies for teaching and learning*. Poster presented at the annual meeting of the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- [59] **Judson, E.**, Ross\*, L., & Glassmeyer\*, K. (2018, March). Are male and female STEM faculty encouraged toward research, leadership, and teaching differently? Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Atlanta, GA.
- [58] **Judson, E.**, Bowers\*, N., & Glassmeyer\*, K. (2018, March) *How students are recruited into enrolling into AP courses and enticed to take AP exams*. Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Atlanta, GA.

[57] Ross\*, L., **Judson, E.,** Hjelmstad, K., Krause, S., Ankeny, C., Culbertson, R., & Middleton, J. (2017, November). *Gender and implicit bias in assigning faculty tasks*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.

- [56] Ross\*, L., **Judson**, **E.**, Krause, S., Ankeny, C., Culbertson, R., & Hjelmstad, K. (2017, November). *Assessing relationships between faculty beliefs and instructional practices in the classroom*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX.
- [55] Ross\*, L., Krause, S., Hjelmstad, K., Middleton, J., **Judson**, **E.**, Culbertson, R., Ankeny, C., Mayled, L., Chen, Y. C., Park, Y. S., Smith, B., & Lopez, E. (2017, November). *Scaling a faculty professional development program to multiple disciplines to promote active Learning strategies in classroom instruction*. Paper presented at the annual meeting of the Association for the Study of Higher Education Conference (ASHE), Houston, TX
- [54] **Judson, E.**, & Ross\*, L., Krause, S. J., Middleton, J. A., Ankeny, C. J., Culbertson, R. J., & Hjelmstad, K. D. (2017, June). *An expectancy theory-based instrument assessing relationships between faculty dispositions and use of student-centered strategies.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- [53] **Judson, E.**, & Ross\*, L., Hjelmstad, K. D., Krause, S. J., Ankeny, C. J., Culbertson, R. J., & Middleton, J. A. (2017, June). *Examination of implicit gender biases among engineering faculty when assigning leadership, research, and service roles.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- [52] Ross\*, L., **Judson, E.**, Krause, S. J., Ankeny, C. J., Culbertson, R. J., & Hjelmstad, K. D. (2017, June). *Relationships between engineering faculty beliefs and classroom practices.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- [51] Krause, S. J., Middleton, J. A., Hjelmstad, K. D., **Judson, E.**, Culbertson, R. J., Ankeny, C. J., Chen, Y., Ross\*, L., Mayled, L. H., Lopez, E., Park Y. S., & Smith, B. B. (2017, June). Scaling a faculty professional development program to multiple disciplines through disciplinary communities of practice evolving from evidence-based workshops. Poster presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.
- [50] Lopez, E., Park Y. S., Smith, B. B., Middleton, J. A., Hjelmstad, K. D., **Judson, E.,** Culbertson, R. J., Chen, Y., Ross\*, L., Mayled, L. H., Krause, S. J., & Ankeny, C. J. (2017, June). *The impact of faculty development workshops on shifting faculty teaching beliefs and classroom practice toward student centeredness.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Columbus, OH.

[49] **Judson, E.**, & Ross\*, L. (2017, April). How sentiments and approaches change from AP to regular and to honors science courses. Poster presented at the annual meeting of the American Educational Research Association (AERA), San Antonio, TX.

- [48] **Judson, E.**, & Ross\*, L. (2017, April). *How feelings about student-centered strategies affect actual implementation*. Poster presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, San Antonio, TX.
- [47] **Judson, E.**, & Ross\*, L. (2017, April). Advanced placement science teachers pivoting to regular and honors courses: How approaches change and persist. Poster presented at NARST: A Worldwide Organization for the Improvement of Science Education through Research, San Antonio, TX.
- [46] **Judson, E.**, Ross\*, L., Middleton, J. A., Krause, S. J., Ankeny, C. J., Chen, Y., Culbertson, R. J., Hjelmstad, K. D., & Park Y. (2016, June). *Measuring dispositions toward teaching strategies and their reported use.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- [45] Smith\*, B. B., Park, Y., Ross\*, L., Krause, S. J., Middleton, J. A., **Judson, E.**, Culbertson, R. J., Hjelmstad, K. D., & Yan, C. Y. (2016, June). *Pathways of student stayers, movers, and leavers in the first two years of undergraduate engineering*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- [44] Krause, S. J., Waters, C., Stuart, W. J., **Judson, E.**, Ankeny, C. J., & Smith\*, B. B. (2016, June). *Effect of contextualization of content and concepts on students' course relevance and value in introductory materials classes*. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- [43] Ross\*, L., **Judson, E.**, Krause, S. J., Middleton, J. A., Ankeny, C. J., Chen, Y., Culbertson, R. J., Hjelmstad, K. D., Park, Y, & Smith, B. B. (2016, June). *How do male and female faculty members view and use classroom strategies?* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.
- [42] Middleton, J. A., Krause, S. J., Judson, E., Culbertson R. J., Ross\*, L., Hjelmstad, K. D., Park, Y., Collofello, & Smith, B. B. (2016, June) *Connections among university faculty engaged in the first two years of engineering and their impact on faculty attitudes and practice.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.

[41] Smith\*, B. B., Park, Y., Ross\*, L., Krause, S. J., Middleton, J.A., **Judson, E.**, Culbertson, R. J., Ankeny, C. J., Hjelmstad, K. D., & Yan, C. Y. (2016, June). Faculty characteristics that influence student performance in the first two years of engineering. Poster presented at the annual meeting of the American Society for Engineering Education (ASEE), New Orleans, LA.

- [40] **Judson, E.**, Smith\*, B., Ernzen\*, J., Middleton, J., Krause, S., and Culbertson, R. (2015, October). What is the effect of establishing programs that address sense of belonging on undergraduate engineering retention? Paper presented at the ASEE/IEEE Frontiers in Education Conference, El Paso, TX.
- [39] Middleton, J., Krause, S., Beeley\*, K., **Judson, E.,** Ernzen\*, J., and Culbertson, R. (2015, October). Examining the relationship between faculty teaching practice and interconnectivity in a social network. Paper presented at the ASEE/IEEE Frontiers in Education Conference, El Paso, TX.
- [38] Ernzen\*, J., **Judson, E.**, Krause, S. J., Collofello, J., Chen, Y., Beeley, K., and Culbertson, R. (2015, June). *Effect of student-centered programs on retention of engineering students.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Seattle, WA.
- [37] **Judson, E.,** Ernzen\*, J., Chen, Y., Krause, S. J., Middleton, J. A., and Beeley, K. (2015, June) *How Next Generation engineering design standards are interpreted and applied by various stakeholders*. Poster presented at the annual meeting of the American Society for Engineering Education (ASEE), Seattle, WA.
- [36] Krause, S. J., Middleton, J. A., **Judson, E.**, Ernzen\*, J., Beeley\*, K., and Chen, Y., (2015, June). *Factors impacting retention and success of undergraduate engineering students.* Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Seattle, WA.
- [35] Middleton, J. A., Krause, S. J., Beeley\*, K., **Judson, E.**, Ernzen\*, J., and Chen, Y. (2015, June). Examining relationships and patterns in pedagogical beliefs, attitudes and classroom practices for faculty of undergraduate engineering, and math, and science foundational courses. Paper presented at the annual meeting of the American Society for Engineering Education (ASEE), Seattle, WA.
- [34] Goodall, J., Webb, N., & **Judson, E.** (2014, April). *Social robotics: Promoting gender equity through hands-on robot programming.* Poster presented at the annual meeting of the American Educational Research Association (AERA), Philadelphia, PA.
- [33] **Judson, E.** (2014, April). The Advanced Placement test-taking explosion: What is the science and math blast effect? Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Pittsburgh, PA.

[32] **Judson, E.** (2014, March). *The impact of STEM charter and magnet schools on achievement*. Paper presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, Pittsburgh, PA.

- [31] **Judson, E.** (2013, April). STEM-focused charter and magnet schools: The effect on student achievement in traditional content areas. Paper presented at the annual meeting of the American Educational Research Association (AERA), San Francisco, CA.
- [30] **Judson, E.** (2013, April). *Time spent teaching science and the relationship to accountability policies.*Poster presented at the annual meeting of NARST: A Worldwide Organization for the Improvement of Science Education through Research, San Juan, PR.
- [29] **Judson, E.** (2012, December). The policy of science standards in action: How will we respond to the new science standards and what are the pitfalls to avoid? Presentation at the National Science Teachers Association Regional Conference, Phoenix, AZ.
- [28] Goodall, J., Webb, N., **Judson, E.**, & DeCorah, K. (2012, October). *Are they there yet? A social robotics workshop for engaging girls where they are.* Paper presented at the annual Grace Hopper Celebration of Women in Computing, Baltimore, MD.
- [27] Martin, L. W., & **Judson, E.** (2012, June). *Evaluating gallery lab engagement*. Presentation at the annual International Conference of the European Network of Science Centres and Museums (ECSITE), Toulouse, France.
- [26] **Judson, E.** (2012, March). When science is high stakes: Variations among the states and effects on reading and math. Paper presented at the Annual International Conference of the National Association for Research in Science Teaching (NARST), Indianapolis, IN.
- [25] **Judson, E.** (2011, June). Effective integration of science and math in the middle schools. Invited panel member at the Integration of Science, Mathematics and Reflective Teaching (iSMART) Conference, Houston, TX.
- [24] Webb, N., Goodall, J., DeCorah, K., & **Judson, E.** (2011, May). *Social robotics: Meet them where they are.* Presentation at the TEDxAlbany Conference, Albany, NY.
- [23] **Judson, E.**, & Wong, S. (2011, April). When science really counts: Examination of states integrating science achievement into accountability programs. Paper presented at the Annual meeting of the American Educational Research Association (AERA), New Orleans, LA.
- [22] **Judson, E.** (2011, April). The accountability variable: Science achievement and differing methods of accountability in the United States. Paper presented at the Annual International Conference of the National Association for Research in Science Teaching (NARST), Orlando, FL.

[21] **Judson, E.** (2011, February). When science counts: What is the effect of including science in state accountability formulas? Paper presented at the National Title I Conference, Tampa, FL.

- [20] **Judson, E.** (2009, December). Asking the right questions: Fostering inquiry through questioning. Paper presented at the National Science Teachers Association Regional Conference, Phoenix, AZ.
- [19] **Judson, E.** (2009, December). *Measuring the integration of science and mathematics integration*. Paper presented at the National Science Teachers Association Regional Conference, Phoenix, AZ.
- [18] Alvarado, C. & **Judson, E.** (2009, May). Moving on multiple fronts: Toward greater participation of women in computer science. Poster presented at the Annual Conference of the National Center for Women and Information Technology, Google Campus, Mountain View, CA.
- [17] Humphreys, C. & **Judson, E.** (2009, May). *Involving graduate students in outreach and recruitment*. Poster presented at the Annual Conference of the National Center for Women and Information Technology, Google Campus, Mountain View, CA.
- [16] McDowell, C. & **Judson, E.** (2009, May). *Impacting access to the computer science pipeline*. Poster presented at the Annual Conference of the National Center for Women and Information Technology, Google Campus, Mountain View, CA.
- [15] **Judson, E.** (2009, April). On becoming a science teacher critical need and critical desire. Invited talk for Future Educators of America, Mesa, AZ.
- [14] **Judson, E.**, Price, D., & Allen, K. (2008, February). From clay to structure: Defining a system of support for LEAs. Paper presented at the National Title I Conference, Nashville, TN.
- [13] **Judson, E.** (2007, May). Developing an evaluation framework for out-of-school-time programs. Paper presented at the Annual 21<sup>st</sup> Century Learning Centers Conference, Phoenix, AZ.
- [12] **Judson, E.** (2007, April). *Identifying student centered instruction in science and mathematics classrooms*. Invited presentation at the Mathematics and Science Partnership Conference, Phoenix, AZ.
- [11] **Judson, E.** (2005, May). *Characterizing effective intervention in high school mathematics.* Invited presentation at the AZ COUNTS Mathematics Conference, Tucson, AZ.
- [10] **Judson, E.** (2005, May). *Integrating mathematics with middle school science*. Invited presentation at the Arizona Teaching, Learning and Assessment Consortium Conference, Fountain Hills, AZ.

[9] **Judson, E.** (2004, September). *Critical observations in the science classroom*. Invited presentation for the Masters of Arts in Science Teaching Program at Northern Arizona University, Flagstaff, AZ.

- [8] **Judson, E.** (2003, August). *Identifying and implementing effective instruction in science and mathematics courses of preservice teachers.* Invited presentation for Kent State, Youngstown University, Cleveland State University and University of Akron Coalition, Akron, OH.
- [7] **Judson, E.** (2003, March). Evaluation across multiple institutions. Invited presentation at Physics Teacher Education Coalition Conference, Tucson, AZ.
- [6] **Judson, E.** (2002, September). *Aligning your evaluation plan with your project's goals*. Invited presentation for the FIPSE Project in Teacher Preparation, School of Education, University of Michigan, Dearborn, MI.
- [5] Lawson, A. E., Wyckoff, S., Eslamieh, C., & **Judson, E.** (2002, April). *Arizona collaborative for excellence in the preparation of teachers: Outcomes and continued collaborations.* Paper presented at the Pathways to Change: International Conference on Transforming Math & Science Education in the K-16 Continuum, Washington D.C.
- [4] Lawson, A. E., & **Judson, E.** (2002, April). *Promoting and evaluating reformed instruction in college.*Paper presented at the Pathways to Change: International Conference on Transforming Math and Science Education in the K-16 Continuum, Washington D.C.
- [3] **Judson, E.** (2002, May). Assessing the impact of reform efforts. Invited presentation for the 104<sup>th</sup> General Meeting of the American Society for Microbiology, Salt Lake City, UT.
- [2] **Judson, E.**, & Sawada, D. (2001, April). Tracking transfer of reform methodology from science and math college courses to the teaching style of beginning teachers of grades 5-12. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- [1] Sawada, D., & **Judson, E.** (2001, March). *Tracking transfer of reform methodology from science and math college courses*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO.

# FUNDED GRANTS

Promoting Aspirations in STEM/ICT through Social Capital, Art, Relationships, and Doing (PASSCARD), NSF #2045306, ITEST Program,	2021- 2025
Role: PI, \$1,275,097	
Arizona's K-8 Consortium: Building Computer Science and Computational Thinking	2021-
Capacity in Rural K-8 Education (early development project), NSF #2031527,	2023
CSforAll Researcher-Practitioner Partnership (RPP)	
Role: Co-PI, PI: Jeremy Babendure, \$299,620 (ASU sub-award: \$56,804)	
STEM and Social Capital: Advancing Families through Learning and Doing (SSCAFLD),	2020-
NSF #2003126, ITEST Program	2022
Role: PI, \$299,807	
Award to Develop Partnerships and Joint Grant Proposal between ASU's Teachers	2019-
College and Herberger Institute of Design and Arts. Seed/planning grant.	2020
Role: PI, \$10,965	
Scaling a Cyber-Enabled, Just-in-Time Teaching with Two-Way Formative Feedback with	2015-
Engineering Disciplines, NSF #1524527, IUSE Program	2019
Role: Co-PI, PI: Stephen Krause, \$1,499,738	
Championing Educational Change through Assessment for the Next Generation	2013-
of Engineers Success, NSF #1256586, EAGER WIDER	2016
Role: Co-PI, PI: Stephen Krause, \$298,854	
Just-in-Time-Teaching with Interactive Frequent Formative Feedback (JITTIFFF) for	2012-
Cyber Learning in Core Materials Courses, NSF #1226325, CCLI Program	2015
Role: Co-PI, PI: Stephen Krause, \$425,132	
Physics Teachers Education Coalition (PhysTEC)	2012-
Arizona PhysTEC Comprehensive Site, sub-award through NSF	2015
Role: Co-PI, PI: Robert Culbertson, \$712,392	
Smithsonian Tropical Research Institute (STRI)	2011-
Desert to Rainforest: Preparing Pre-service Teachers for Science Success,	2013
Smithsonian Institute	
Role: Co-PI, PI: Mari Koerner, \$140,750	
Arizona State University Internal Grant, Mary Lou Fulton Teachers College	2010-
Determining the Relationship between Accountability and the	2011
Dynamics of Science Instruction in Elementary Classrooms	
Role: PI, \$3,000	

#### **TEACHING**

## **Courses Taught**

DCI 440, Science Methods for the Elementary Classroom

EAC 440, Integrated Science Methods for the Early Childhood Classroom

EDA 505, American Education System

EDP 523, Educational Assessment EED 593, Applied Project for the Elementary Classroom

EPA 532, Becoming an Informed Consumer of Educational Research

EPA 565, Critical Topics in Educational Policy

EPA 691, Policy and Critical Issues in STEM Education

SED 593, Applied Project for the Secondary Classroom

SED 579, Apprentice Teaching in Secondary Education (Supervision of student teachers)

TEL 501, Introduction to Research and Evaluation in Education

DCI 784, Teaching Internship for Doctoral Students

DCI 791, College Teaching for Doctoral Students

TEL 790, Survey Development

TEL 780, Case Study Research

# **Student Mentoring**

#### PhD and EdD students - chair

Glassmeyer, Kristi (target 2022). Relationships among School Organizational Capacity and Science Teacher Practices. PhD

Baldwin, Jennifer (target 2022). School Reform through Research-based Structured Coaching of Building Administrators. EdD

Chowdhury, Madeleine (target 2022). Improving Calculus Explanations through Self-Assessment and Peer Review. EdD

Derrick, Matthew (target 2022). Learning Communities as Means to Developing Geoscience Programs. EdD

Lowery, Wendy (target 2022). Improving Workplace Giving in Higher Education. EdD

Terzian-Zeitounian, Alene (target 2022). Measuring the Impact of Professional Development on Community College Faculty and Students. EdD

Yantorno, Christina (target 2022). Imposter Syndrome and Academic Success: Supporting students to Graduation and Beyond. EdD

Bell, Kendra (2020). Creating the Prison-to-College Pipeline: An Examination of the Educational Experiences of Formerly Incarcerated Women. EdD

- Galetti, Sarah (2020). From Zero Tolerance to Restorative Justice: Implementing Restorative Justice in a High School System. EdD
- Manchester, Sarah (2020). Strength Braining: An Innovation Countering Fifth-Grade Underachievement in Mathematics through Growth Mindset and Self-Regulation. EdD
- Morgan, Chad (2020). University Staff; Creativity and Innovation in Higher Education. EdD

#### Riethmann, Tamera (2020). Family Engagement in a Teacher Preparation Program. EdD

Thompson, Michael (2020). Organizational Justice and Organizational Citizenship Behavior at ASUPD. EdD

Ross, Lydia (2019). Examining Undergraduate Engineering Students' Knowledge, Beliefs, and Attitudes Regarding Affirmative Action Admissions Policies: A Hierarchical Regression Analysis. PhD

#### PhD and EdD students - committee member

Bryant, Aaron (target 2022). The Purpose of Education in America, Clinton to Obama. PhD.

- Holton, April (target 2021). Impact of DiALoG on Teachers' Professional Vision of Oral Scientific Argumentation. PhD.
- Blechacz, Sarah (2018). Transitioning Science Teachers to an Inquiry-Based Approach to Develop Critical Reasoning Skills in High School Students. EdD.
- Orletsky, Darryl (2015). The Use of Proportional Reasoning and Rational Number Concepts by Adults in the Workplace. PhD.

#### Awards Earned by Doctoral Students Chaired

#### Kendra Bell

 First Place, Best Research Award: Developing Research Category, Arizona State University, 2018

#### Lydia Ross

#### Best Paper awards as first author (advisor, Eugene Judson, as second author):

- Best Paper, Professional Interest Council V, 2018 American Society for Engineering Education Conference, Salt Lake City, UT.
- Best Paper, Continuing Professional Development Division, 2018 American Society for Engineering Education Conference, Salt Lake City, UT.

## Best Paper awards as member of author team:

• Best Paper, Mechanical Engineering Division, 2019 American Society for Engineering Education Conference, Tampa, FL.

• Best Paper – 2nd Place, First-Year Program Divisions, 2018 American Society for Engineering Education Conference, Salt Lake City, UT.

• Best Paper, First-Year Program Divisions, 2016 American Society for Engineering Education Conference, New Orleans, LA.

#### Master's students

The EED 593 and SED 593 courses are capstone courses for the Masters of Education and Certification (MAC) and the Induction and Master of Education and Certification (InMAC) programs at Arizona State University. Within these courses, students develop and implement action research projects. The action research project takes the place of a traditional thesis. As of March 2021, Dr. Judson has mentored 265 M.Ed. graduate students in developing and completing their action research thesis projects.

#### **SERVICE**

## **Professional Service**

- NARST Member of External Policy & Relations Committee, 2019–present
- Editorial Board, Science Education, 2018-present
- Associate Editor, Education Policy Analysis Archives journal, 2014 present
- External Consultant, National Center for Women and Information Technology (NCWIT), 2007-present
- NARST Nexus Graduate Student Mentor, 2018-2019
- NARST Co-coordinator, Policy Strand, 2017-2019
- NARST Member of External Policy & Relations Committee, 2012–2015
- NSTA Member of Research in Science Education Committee, 2012–2015
- Next Generation Science Standards (NGSS) Critical Stakeholder, 2011–2014
- K-12 STEM Education Policy Conference, delivered key talking points to Arizona's members of U.S. Congress and their staff members
- Reviewer for journals and conferences within last three years:
  - o International Journal of Environmental and Science Education
  - o Science Education
  - O School Science and Mathematics
  - o International Journal of STEM Education
  - o Journal of STEM Education: Innovations and Research
  - o Transactions on Computing Education
  - o American Society of Engineering Education (ASEE)
  - o NARST Conferences

#### **Institutional Service**

- Reviewer of applications to ASU's Achievement Rewards for College Scientists (ARCS), 2020-present
- Reviewer of applications to Mary Lou Fulton Teachers College's EdD and PhD programs,
   2015-present
- Faculty representative for Mary Lou Fulton Teacher's College graduate student academic and professional integrity issues, 2016-present
- Piloted ASU's Academic Personnel Actions Reporting System (APARS), 2019-2020
- Reviewer of Mary Lou Fulton Teachers College Curriculum Maps Secondary Science, 2020
- Member, Personnel Evaluation Committee, Mary Lou Fulton Teachers College, 2016-2019
- Chair, Educational Policy and Evaluation PhD Program, Mary Lou Fulton Teachers College 2016-2019
- Member, Executive Committee of Ph.D. Programs, 2014, 2016-2019

#### **Institutional Service (continued)**

- Member, Educational Policy and Evaluation Program Committee, 2012-2016
- Chair and Member, Student Issues Committee, Mary Lou Fulton Teachers College, 2012– 2015
- Senator from Mary Lou Fulton Teachers College on the ASU University Senate, 2011–2013
- Member, Student-Faculty Policy Committee of the University Senate, 2011–2012
- Co-Chair, Mary Lou Fulton Teachers College School Improvement Task Force, 2011
- Member of multiple faculty search committees:
- Member, Induction and Master of Education and Certification Task Force, 2009–2011
- Science Chair, Content Academies for Professional Development School Teacher Education Network of Excellence through Technology (PDS TENET), 2005–2010
- Member, Academic Policies and Programs Committee, 2008–2009

#### **Community Service**

- Advisory Committee Member, Burundi-America Association for Humanity and Opportunities (BAAH), 2017-present
- The Welcome to America Project (community volunteer in support of recently resettled refugee families), 2011-present
- Arizona K-12 Science Standards Development Team, 2016-2019
- Organizer of Family Science Night for Chaparral Elementary School, Higley Unified District
- Member, PBS/KAET Stakeholders Committee, 2008–2011
- Member, Project Pathways Design Team of the Arizona Science Center, 2009–2014

#### **Professional Affiliations**

- American Educational Research Association (AERA)
- National Science Education Leadership Association (NSELA)
- Arizona Science Teachers Association (ASTA)
- National Association of Research in Science Teaching (NARST)

# AWARDS

American Society of Engineering Education (ASEE) Best Paper, Professional Interest Council V	2018
American Society of Engineering Education (ASEE) Best Paper, Continuing Professional Development Division	2018
American Society of Engineering Education (ASEE) Best Paper – 2 <sup>nd</sup> Place, First Years Program Division	2018
American Society of Engineering Education (ASEE) Best Paper Award, First-Year Programs Division	2016
Arizona State University President's Medal for Social Embeddedness Team award	2007
Arizona State University President's Medal for Team Excellence Award	2001