

**DANIELLE CHAMPNEY**  
ANNOTATED PROFESSIONAL RESUME  
current: October 1, 2017

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**(1) EDUCATION**

**Ph.D., Science and Mathematics Education (SESAME)**, University of California, Berkeley 2013  
Dissertation: *Explaining Infinite Series – An Exploration of Students’ Images*  
Dissertation committee: Alan H. Schoenfeld, Ole Hald (math), Jon Wilkening (math)

**M.A., Statistics**, University of California, Berkeley 2010  
Thesis: *Assessing the Use of Assessment Results: Measuring teachers’ interpretations of a statistical reporting system*  
Thesis committee: Deborah Nolan, Elizabeth Purdom, Mark Wilson (education)

**B.S., Applied Mathematics & Psychology (double)**, Bowling Green State University 2007  
Advisors: David Meel (mathematics education) and Marie Tisak (psychology)  
Graduated with university and departmental honors, magna cum laude

**(2) EMPLOYMENT**

**Assistant Professor**, Department of Mathematics, California Polytechnic State University; San Luis Obispo, CA 2013-current

**Mathematics Instructor**, Los Medanos College; Pittsburg, CA 2009-2013

**Mathematics Instructor**, UC Berkeley Extension, Fall Program for Freshmen; Berkeley, CA 2012

**(3) TEACHING RELATED ACTIVITIES**

**(3A) COURSES TAUGHT**

Cal Poly; San Luis Obispo, CA. 2013-current  
Courses taught (academic quarter) – MATH 141 (F13, F14, W18), 142 (W14, W15), 143 (S14, S15, Su15), 227 (F13, F15), 300 (F16, F17), 328 (W14, W16), 329 (S14, W16), 330 (F14, F16), 400 (F14, W16, S16), 423 (S17, S18), 425 (S14, W15, W16, W18, S18), 442 (W15, W16, W17, W18), 443 (S15, S16, S17), 461/462 (ongoing); LS 380 (F15), SCM 270 (Su16), EDUC 535 (W17)

UC Berkeley Extension Fall Program for Freshmen; Berkeley, CA. 2012  
Courses taught – Calculus for STEM majors

Los Medanos Community College, Contra Costa Community College District; Pittsburg, CA. 2009-2013  
Courses taught – Prealgebra, Intermediate Algebra, Calculus I, Calculus II, Calculus III, Differential Equations; Additional staffing of the Math Study Lab and Technology Center; Additional teaching on the developmental math team as part of the LMC Transfer Academy

UC Berkeley Summer Sessions; Berkeley, CA. 2008-2012  
Courses taught (as instructor of record) – Engineering track and non-STEM track versions of Calculus and Differential Equations

UC Berkeley; Berkeley, CA. 2007-2013

Courses taught (as graduate student instructor) – Engineering track and non-STEM track versions of Calculus I and Calculus II and Differential equations	
Bowling Green State University; Bowling Green, OH.	2005-2007
Courses (as supplemental instructor) – College Algebra, Precalculus, Calculus, Computer Science	
<b>(3B) TEACHING HONORS</b>	
Kappa Alpha Theta Fraternity “National Top 10 Outstanding Faculty Member” Award, Cal Poly SLO	2016
Teaching Effectiveness Award, UC Berkeley	2010
Outstanding Graduate Student Instructor award, Mathematics, UC Berkeley	2009-2010
Phi Delta Kappa International Award for Prospective Educators	2004
<b>(3C) ADDITIONAL CURRICULUM AND COURSE CONTRIBUTIONS</b>	
Wrote and had accepted - Course proposal for Summer 2016 Cal Poly Scholars section of SCM 270 during Quarter Plus (Cal Poly); Taught SCM 2016 during Summer 2016, planned for Summer 2017	2016
Facilitator: Graduate Student Instructor Training for first-time Mathematics and Statistics students (Graduate Teaching and Resource Center, UC Berkeley)	2009-2013
Facilitator: Summer “calculus for engineers” workshops for students interested in transferring to 4-year universities in STEM fields (Los Medanos College)	2011-2013
Curriculum Writer: Statway Program (Carnegie Foundation for the Advancement of Teaching); Supervised by Myra Snell; <i>Authored online, interactive modules for the STATWAY program, for introductory statistics topics</i>	2011
Supplemental Instruction Coordinator/Supervisor (Bowling Green State University) – College Algebra, Precalculus, Calculus, Computer Science I and II, Introductory Physics, American History	2006 – 2007
<b>(3D) SUPERVISED UNDERGRADUATE RESEARCH</b>	
Cal Poly Senior Projects (completed and in progress) for 20 math, 2 liberal studies, and 1 mechanical engineering student	2014-current
Da Vinci School Research projects – extension of the Da Vinci School partnership (see grants section), work with undergraduate student teams to research unique aspects of the partnership. Deliverables: ASEE conference proposal, complete proposal for next phases of partnership (approved by Da Vinci for 2016-2020 AY, multiple manuscript submissions in progress and submitted with Cal Poly students, and 4 senior projects.	2014-current
Summer 2014-2017 Supervised Undergraduate Research (Cal Poly): supervision of 17 research students over the course of four years:	2014-current
<ul style="list-style-type: none"> <li>• 2014 - designing a second phase of a study to examine students’ approximation strategies and physics, calculus, and chemistry contexts</li> <li>• 2015 – developing Curriculum supplements for approximation curriculum and statistics topics</li> <li>• 2016 - ongoing work with Cal Poly partner schools and teachers, both locally and in Los Angeles and the SF Bay Area (3 projects)</li> <li>• 2017 – extending the ongoing projects in the SF Bay with a fifth grade classroom role-playing system, Los Angeles with Cal Poly partner school engineering activities, and additionally preparing a video library of student thinking for use in our Liberal Studies courses (3 projects)</li> <li>• Deliverables include RUME 2015 and 2017 conference proposal and poster, complete proposal for extension of several studies (with submitted IRB protocols), annotated bibliographies of relevant research, student presentations at multiple conferences, 8 students’</li> </ul>	

senior projects, several manuscripts in progress for both math education and engineering education journals

NERDS intern mentor [ucberkeleynerds.com] (UC Berkeley) – research mentor to African-American, Native-American, Hispanic, low-income, first-generation, women in science and mathematics fields, providing research experience and guidance in applying to STEM graduate programs. 2012-2013

#### **(4) SCHOLARSHIP**

##### **(4A) PEER-REVIEWED PUBLICATIONS**

###### **(4A1) IN PUBLICATION**

Champney, D., Kato, D., Spies, J., & Weber, K. (2015). Students' perceptions of the disciplinary appropriateness of their approximation strategies. *Proceedings of the 17<sup>th</sup> Annual Conference on Research in Undergraduate Mathematics Education*, 2013, Denver, Colorado.

Description: Peer-Reviewed Proceedings of the RUME Conference, submitted and published in 2015. Final submissions are peer-reviewed and accepted or rejected from the conference proceedings. Work done while at Cal Poly, with Cal Poly math students David Kato, Jordan Spies, and Kelsea Weber.

Kuo, E. & Champney, D. (2014). Three diagnoses of why transfer across disciplines can fail and their implications for interdisciplinary education. Polman, J. L., Kyza, E.A., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., and D'Amico, L. (Eds.). (2014). *Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS)*, 2014, Volume 1. Boulder, CO: International Society of the Learning Sciences.

Description: Peer-Reviewed Proceedings of the ICLS Conference, submitted and published in 2014. Final submissions are peer-reviewed and accepted or rejected from the conference proceedings. Work done prior to Cal Poly, but submitted, accepted, and published as Assistant Professor. Co-authored by Eric Kuo, postdoc at Stanford, and previous collaborator on this work. Paper was completed by both authors, but presented by Kuo at the conference in Denver.

Champney, D. (2013). On the sensitivity of problem phrasing – Exploring the reliance of student responses on particular representations of infinite series. In (Eds.) S. Brown, G. Karakok, K. H. Roh, and M. Oehrtman, *Proceedings of the 16<sup>th</sup> Annual Conference on Research in Undergraduate Mathematics Education*, 2013, Denver, Colorado.

Description: Peer-Reviewed Proceedings of the RUME Conference, submitted and published in 2013. Final submissions are peer-reviewed and accepted or rejected from the conference proceedings. Work done prior to Cal Poly, but submitted, accepted, and published as Assistant Professor.

Champney, D. & Kuo, E. (2012). An evolving graphical image of approximation with Taylor series: A case study. In (Eds.) S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman, *Proceedings of the 15<sup>th</sup> Annual Conference on Research in Undergraduate Mathematics Education*, 2012, Portland, Oregon.

Description: Peer-Reviewed Proceedings of the RUME Conference, submitted and published in 2012. Final submissions are peer-reviewed and accepted or rejected from the conference proceedings. Work done prior to Cal Poly. Co-authored by Eric Kuo, postdoc at Stanford, and previous collaborator on this work. Paper authorship was lead by Champney, and presented by Champney, with contributions from Kuo.

Wilmot, D. B., Champney, D., Schoenfeld, A., Wilson, M., & Zahner, W. (2011). Validating a learning progression in mathematical functions for college readiness. *Mathematical Thinking and Learning*, 13(4), 259-291.

Description: Submission in Mathematical Thinking and Learning, editor Lyn English. Published in 2011. Authorship was lead by Wilmot, with significant contributions and revisions by Champney and Zahner, and oversight (advisers) by Schoenfeld and Zahner. Work done prior to Cal Poly.

###### **(4A2) MANUSCRIPTS IN PREPARATION / SUBMITTED**

On the sensitivity of problem phrasing – exploring the reliance of student responses on particular representations of infinite series

Description: **Paper. Submitted** to *Journal for Research in Mathematics Education*. Single-author manuscript based on dissertation research. Demonstrates ways in which the variations in student response to infinite series tasks is dependent on how the question frames the idea of convergence and equality.

#### Visualizing Mathematical Connections in Students' Individual Teaching Episodes

Description: **Paper. Submitted** to *Mathematical Thinking and Learning*. Single-author manuscript based on dissertation research. Utilizes a specific diagrammatic approach to address strengths and weaknesses of students' conceptual knowledge, as assessed by their individual attempts at 'teaching' the material.

#### Concept Mapping in Math for Elementary Teachers Courses.

Description: **Paper. Submitted.** Collaboration with colleagues at Kennesaw State and Arizona State; Kennesaw State professor is first author. Collaboration initiated at the 2014 STAR Conference and Retreat.

#### Classroom Strategies for Increasing Engagement and Reflection in Technology-Based High Schools

Description: **Paper.** Anticipated submission date, Winter 2017. Targeted journals: *Mathematics Teacher Educator* and *The Mathematics Teacher*. Single-author manuscript, in collaboration with a classroom teacher.

#### The Role of Student and Peer Mentorship in Project-Based Learning Settings

Description: **Paper.** Anticipated submission date – October 2017. Targeted journal: *Journal of Engineering Education*. Collaboration with Cal Poly students from independent study and summer research. Champney is first author.

#### Gamifying the Fifth Grade Experience

Description: **Paper.** Anticipated submission date – October 2017. Targeted journal: *Teaching Children Mathematics*. Collaboration with classroom teacher and Cal Poly students from summer research. Champney is first author.

### (4B) PRESENTATIONS

#### (4B1) CONFERENCE PUBLICATIONS, TALKS, AND PRESENTATIONS

##### In progress – Student Research Team, Champney, D. (2017).

Description: **Poster Presentation.** Presented at Cal Poly's "More than a Motto" Conference, Nov 3, 2017. With Cal Poly students Hayley Cushing, Maria Ramirez, Lacey Christopherson, Kathryn voltmer, Nick Rubio, Kara Hewson, Gloria Whang.

##### In progress – Yoshinobu, S., Choboter, P., & Champney, D. (2017).

Description: **2-hour Workshop.** Presented at Cal Poly's "More than a Motto" Conference, Nov 3, 2017.

##### Champney, D., Fentress, A., Brady, P., & Chen, J. (2016). *Future K-12 Teacher Candidates Take on Engineering Challenges in a Project-Based Learning Course*

Description: **Poster presentation.** Presented at the CSU Teaching and Learning Symposium, 2016. With Amanda Fentress (a Cal Poly student) and Brady & Chen, Cal Poly faculty.

##### Brady, P., Champney, D., & Chen, J. (2016). *Future K-12 Teacher Candidates Take on Engineering Challenges in a Project-Based Learning Course.*

Description: **Conference paper and presentation.** Presented to the American Society of Engineering Education 2016 conference. With Pamalee Brady (architecture) and John Chen (mechanical engineering) – both Cal Poly faculty. Brady initiated the paper submission, with writing input from Champney and Chen.

##### Champney, D. & Grundmeier, T. (2015). Geometry through IBL at Cal Poly.

Description: **Talk.** Shared at the 2015 AIBL Workshop for Inquir-Based Learning at Cal Poly; with Cal Poly professor Todd Grundmeier. Included coordination of a student panel containing 3 Cal Poly Math students.

##### Champney, D., Cheng, A., & Schaefer, C. (2015). Stories of empowerment: The IBL experience for non-math majors in an upper division math course.

Description: **Talk and Student Panel.** Shared at the 2015 IBL Conference in Austin, Texas. With Colin Schaefer and Alex Cheng, Cal Poly students (liberal studies with math concentration, and chemistry with a math minor). Included a talk, jointly with the CP students, and was followed by a student panel including the CP students.

##### Dounas-Frazer, D., Champney, D., Reinholz, D., & Quan, G. (2015). Facilitating student self-reflection & personalized instructor feedback. American Association of Physics Teachers Conference. College Park, MD, July 2015.

Description: **Workshop.** 2015 National AAPT meeting in College Park, MD. Co-organized with equally shared responsibilities between all four presenters. Work done while at Cal Poly.

Champney, D. (2014). Visualizing Mathematical Connections in Student Teaching Episodes. In (Eds.) S. Brown, G. Karakok, K. H. Roh, and M. Oehrtman, *Proceedings of the 16<sup>th</sup> Annual Conference on Research in Undergraduate Mathematics Education*, 2013, Denver, Colorado.

Description: **Poster.** Shared at the 2014 RUME Conference in Denver, Colorado. Poster presentations are not peer-reviewed in their final form, but the proposal submission process is still competitive. Work done while at Cal Poly, with data collected prior to appointment. Poster audience of approximately 35, during a targeted viewing session.

Champney, D. & Kuo, E. (2012). Disciplinary dependence of student reasoning about approximation. Poster presented at Transforming Research in Undergraduate STEM Education Conference. St. Paul, MN, June 2012.

Description: **Invited Poster.** Shared at the 2012 National TRUSE Conference in St. Paul, MN. Coauthored by Kuo, with equal contributions from both authors. Work done prior to Cal Poly.

Champney, D. & Kuo, E. (2012). Beyond the physics classroom: Exploring disciplinary factors that influence students' reasoning about approximation, through video data. Proceedings for Physics Education Research Conference (PERC). Philadelphia, PA, August 2012.

Description: **Invited Workshop.** Kuo and Champney, with equal contributions, presented an invited workshop at the 2012 National PERC session (Physics Education Research Conference, an extension of AAPT) in Philadelphia, PA. Work done prior to Cal Poly. Approximately 30 participants.

Kuo, E., Champney, D., & Little, A. (2012). Considering factors beyond transfer of knowledge. Proceedings for Physics Education Research Conference (PERC). Philadelphia, PA, August 2012.

Description: **Paper and Presentation.** Kuo and Champney, with equal contributions, presented a paper at the 2012 PERC session (Physics Education Research Conference, an extension of AAPT) in Philadelphia. Work done prior to Cal Poly.

Wernet, J., Lepak, J., Seashore, K., Nix, S., Champney, D., Floden, R., Kim, H., Louie, N., Reinholz, D., Schoenfeld, A., Shah, N. (2011). Algebraically rich tasks: Linking instruction and student understanding. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Indianapolis, IN, April 2011.

Description: **Paper and Presentation.** Shared at the 2011 NCTM National Conference, Indianapolis, IN. Work done prior to Cal Poly. Authorship led by Wernet and Lepak, with significant contributions by Seashore, Nix, and Champney.

Reinholz, D., Levin, M., Kim, H., Champney, D., Floden, R., Katwibun, D., Lepak, J., Louie, N., Nix, S., Sanchez, J., Schoenfeld, A., Seashore, K., Shah, N., & Wernet, J. (2011). Capturing What Counts: Classroom Practices That Lead To Robust Understanding of Algebra. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April 8-12, 2011.

Description: **Paper and Presentation.** Shared at the 2011 AERA Conference, New Orleans, LA. Work done prior to Cal Poly. Authorship led by Reinholz, Levin, Kim, and Champney (in that order), with other authors as contributors.

Lepak, J., Seashore, K., Reinholz, D., Nix, S., Champney, D., Floden, R., Katwibun, D., Kim, H., Levin, M., Louie, N., Sanchez, J., Schoenfeld, A., Shah, N., & Wernet, J. (2011). Assessing what counts. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April 8-12, 2011.

Description: **Paper and Presentation.** Shared at the 2011 AERA Conference, New Orleans, LA. Work done prior to Cal Poly. Authorship led by Lepak and Seashore, with contributions from the remaining authors.

Champney, D. (2010). Student understanding of convergence and divergence in the context of infinite series. Poster presented at Transforming Research in Undergraduate STEM Education Conference. Orono, ME, June 2010.

Description: **Poster.** Shared at the 2010 National TRUSE Conference in Orono, ME. Work done prior to Cal Poly. Attendance at this conference was by invitation.

Wilmot, D. B., Champney, D., Wilson, M., Schoenfeld, A., & Zahner, W. (2009). Using Wright maps to understand student progress toward college readiness in mathematics. Paper presented at American Educational Research Association. San Diego, CA, April 2009

Description: **Paper and Presentation.** Shared at the 2009 AERA Conference in San Diego, CA. Work done prior to Cal Poly. Authorship led by Wilmot and Champney, with advisory comments from the remaining authors.

Wilmot, D. B., Zahner, W., Champney, D., Schoenfeld, A., & Wilson, M. (2009). Using cognitive and psychometric models of student learning in mathematics to validate a measure of college readiness. Paper presented at American Educational Research Association. San Diego, CA, April 2009.

Description: **Paper and Presentation.** Shared at the 2009 AERA Conference in San Diego, CA. Work done prior to Cal Poly. Authorship led by Wilmot and Zahner, with advisory comments from the remaining authors.

Champney, D. & Adiredja, A. (2009). Connecting beliefs and missed opportunities: An opportunity for graduate student instructors' reflection on teaching. Proceedings for SIGMAA on RUME Conference. Raleigh, NC, February 2009.

Description: **Paper and Presentation.** Shared at the 2009 RUME Conference in Raleigh, NC. Work done prior to Cal Poly. At this time, the RUME proceedings were not peer-reviewed before publication. Both authors contributed equally to this work.

Engle, R., Adiredja, A., Champney, D., Howison, M., Huang, A., & Shah, N. (2008). Explaining student success in one PDP calculus section. Proceedings for SIGMAA on RUME Conference. San Diego, CA, April 2008

Description: **Paper and Presentation.** Shared at the 2008 RUME Conference in San Diego, CA. Work done prior to Cal Poly. At this time, the RUME proceedings were not peer-reviewed before publication. Authorship led by Engle, with significant contributions by Adiredja and Champney, and advisory comments by the remaining authors.

Wilmot, D. B. & Champney, D. (2008). Assessing progress toward college readiness with cognitive and psychometric models of student learning in mathematics. Paper presented at American Educational Research Association. New York City, NY, April 2008.

Description: **Paper and Presentation.** Shared at the 2008 AERA Conference in New York, NY. Work done prior to Cal Poly. Authorship led by Wilmot, with significant contributions from Champney. Presentation of the work by Champney.

#### **(4B2) INVITED TALKS AND POSITIONS**

Invited Special Session Speaker - AMS Regional Meeting – UC Riverside, Riverside, CA. Special Session on “Characteristics of a Successful Mathematics Gateway Program. “Transforming our Classrooms into Calculus Communities, and the Role of Productive Failure.” *See attached agenda for the invited speaker list	2017
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Invited Faculty Member – 2 week <i>Epsilon Camp</i> for advanced mathematics students, ages 7-11; St. Louis, MO. Taught courses on Conjecturing and Problem Solving, in which young students engaged in rich mathematical exploration that included topics in topology, graph theory, combinatorics, geometry, and more.	2017-current
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Invited Colloquium – UC Santa Barbara Mathematics Department –Teaching and Learning Colloquium	2017
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Invited Plenary - RiSE National Conference, University of Maine, Orono, Maine. “Integrating STEM Education Research and Teaching: Using Assessment to Guide Practice.” <b>Talk postponed until 2017 due to rescheduling of the conference</b>	2017
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Invited Speaker - TRUSE – Transforming Research in Undergraduate STEM Education Conference, “How small is small? Student reasoning with approximation in introductory calculus and physics.” Joint presentation with E. Kuo, equal contributions and preparation by both authors. Audience of approximately 250. In St. Paul, MN, 2012. Work done prior to Cal Poly.	2012
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Invited Workshop - AAPT/PERC – American Association of Physics Teachers/Physics Education Research Conference, “ Beyond the physics classroom: Exploring disciplinary factors that influence students’ reasoning about approximation, through video data.” Joint presentation with E. Kuo, equal contributions and preparation by both authors. Audience of approximately 30. In Philadelphia, PA, 2012. Work done prior to Cal Poly.	2012
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Invited Speaker - Physics Education Research Group / Science Education Research Meeting at the University of Maryland, College Park; “Patterns in students’ use of approximation in physics and calculus contexts.” Joint presentation with E. Kuo, led by Champney. Audience of approximately 30. In	2011
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College Park, MD, 2011. Work done prior to Cal Poly.

#### **(4B3) COMMUNITY OUTREACH**

Professional participation in New Tech High School Mathematics courses, taught by Cal Poly alum Ben Woodford 2014-2017

Professional Development Opportunity with San Luis Obispo County Office of Education: Common Core Standards in Mathematics Workshop for Grades 6-12 in-service teachers, July 2014 (with E. Medina & A. Schinck-Mikel). Work done while at Cal Poly. 2014

#### **(4C) GRANTS AND CONTRACTS**

Fortune School STEM Curriculum Development. Work with Cal Poly administration to assist partner school The Fortune School in developing their Science and Mathematics curriculum for their pilot high school, to open in Fall 2017. The scope of work includes oversight of all STEM curriculum development, designing partnerships with Fortune administration and teachers and the CP faculty, providing professional development in active learning for Fortune administration and faculty, curating curriculum for the math courses at Fortune, and more. Scope of work submitted to Fortune in August 2016, work to begin in January 2017. \*See attached letter for scope of work and detail 2016-current

Da Vinci School Collaboration. Work with Cal Poly administration to assist partner school The Da Vinci (Science) School in developing their Mathematics curriculum and strengthening engineering partnerships via student mentoring. The scope of work includes revamping aspects of the math curriculum at DV, designing partnerships with DV administration and teachers and the CP faculty, providing ongoing student teams to partner directly with the DV students and faculty in joint engineering projects, hosting the DV school at Cal Poly several times a year, and more. Work is ongoing since 2014, with increased scope of work each year, and close partnerships with the Engineering College at Cal Poly. \*See attached letter for scope of work and detail 2014-current

KIPP Bay Area School Collaboration. Work with the Cal Poly administration to assist partner school KIPP Bay Area in designing professional development modules on active learning for their faculty, as well as revising the scope and sequence of their school math curriculum. Work to be modeled after the work with Da Vinci in the past years. Scope of work submitted to KIPP September 2016. 2016-current

Sanger High School Collaboration. Work with the Cal Poly administration to assist partner school Sanger High School in revising math curriculum and offering active learning professional development akin to the work with Da Vinci School. Scope of work in preparation for campus visit scheduled Nov 10, 2016. 2016-current

Mathematics Readiness Challenge Grant. (Cal Poly). Wrote grant application for California Department of Education grant opportunity (\$1.28 million) for partnership with local high needs districts to design Grade 12 math experience courses. Did not receive funding (SLO was not geographically or financially competitive). Plan to use the existing narrative for this grant in further funding pursuits. 2016 (not funded)

Collaboration with Bay Area fifth grade teacher, finalizing grant submission for development of a classroom system for elementary school classrooms, which takes advantage of the principles of gamification, classroom economies, and other research-driven principles to develop an innovative classroom dynamic that we could then study and assess. Additionally, Cal Poly summer research students have worked toward this during summer 2016 and 2017. In progress

Cal Poly, Bechtel funded grant to study Project Based Learning. While I did not participate in the authorship of this grant, my work on this grant includes developing and co-teaching a PBL course for mathematics, engineering, and liberal studies, as well as participation in designing assessment opportunities for PBL at Cal Poly, and potential assistance in the development of a CP Lab School affiliated with the grant. 2015-2016

Preparing Undergraduates through Mentoring towards PhD's (PUMP). (competitive). Application with two Cal Poly math majors interested in attending graduate school and attaining advanced degrees in Mathematics Education. This was a minigrant opportunity that I and the CP students used to attempt to broaden the definition of what PhD-seeking could mean, in a math context (toward Math Education PhD programs, which are growing). The opportunity was not funded, but we plan to continue to apply to gain support and recognition of Math Education PhD programs as a viable advanced degree for our graduates.	2015 (not funded)
PERLOC minigrant, facilitated by Dr. Dimitri Dounas-Frazer (formerly in CESAME at Cal Poly). (competitive). Funded the PRISM team (an interdisciplinary, multi-institutional collaboration to study students' reflection strategies and inter- and intra-personal skills that lead to success in physics and mathematics problem solving). Work done while at Cal Poly. Dounas-Frazer, Champney, and D. Reinholz (UC Boulder) share responsibilities to lead the collaboration, with other collaborators providing significant contributions. Subaward in the amount of \$10,000 to facilitate the multi-institutional collaboration.	2013 (funded, closed)
APS Public Outreach and Informing the Public Grant: <i>People who do physics: The names, faces, and stories of physics researchers</i> . (competitive). Grant was designed to develop multimedia biographies and associated curricula for science courses in pre-service teacher programs. Work done while at Cal Poly. Dounas-Frazer and Champney shared responsibilities for preparing the proposal. The proposal was <b>not funded</b> , to date.	2014 (not funded)
TRUSE NSF subaward, to conduct an independent research project on an interdisciplinary research team (UC Berkeley & University of Maryland). Work done prior to Cal Poly. In collaboration with E. Kuo (formerly at Maryland, College Park) and A. Little (formerly at UC Berkeley). Subaward in the amount of \$5,000 (awarded as graduate students) to facilitate the multi-institutional collaboration.	2010-2012 (funded, closed)
Graduate Division Summer Research Grant, UC Berkeley (competitive). Prior to Cal Poly. Award of \$6,000 to fund summer research, awarded to the individual and not the institution.	2010-2011 (funded, closed)
<b>(4D) CONSULTING ACTIVITIES</b>	
Scorer and Consultant; Performance Assessment for California Teachers (PACT) portfolios for teacher candidates (San Francisco State University, San Jose State University, UC Berkeley). Work done prior to and while at Cal Poly.	2010-2015
edTPA Training, Pearson Educational. Training completed in the reviewing and scoring of edTPA portfolios for Pearson Educational. Work done while at Cal Poly.	2014
Zero-Based Scheduling Coordinator (Los Medanos College); reorganization and evaluation of all STEM-pathway courses, including evaluating prerequisites, course sequencing, course scheduling, and more for the biology, chemistry, computer science, engineering, mathematics, and physics departments (paid position). Final product – policy document, with recommendation of complete overhaul of STEM schedule for Los Medanos College system. Work done prior to Cal Poly.	2012-2013
<b>(4E) PROFESSIONAL HONORS, SCHOLARSHIP AND LEADERSHIP ACTIVITIES, AND PROFESSIONAL DEVELOPMENT</b>	
Active Learning Professional Development workshops – design workshops on active learning in STEM for partner high school administration and faculty, coordinate all aspects of the design and delivery of the Professional Development, and work with the partner schools in an ongoing process to implement active learning strategies in their districts. Workshops provided in Los Angeles, CA, Sacramento, CA, Cleveland, OH, and St. Louis, MO. Workshops span from half day to three days in length, and focus on a wide range of Active Learning topics, including managing groupwork, designing a school and curriculum around Active Learning Principles, Equity in Active Learning, etc...	2016-current
Inquiry Based Learning (IBL) Workshops – participate in workshop planning and facilitation, assessment as appropriate, and ongoing mentoring of the workshop participants, via the AIBL grants	2015-current



secured by Stan Yoshinobu. Workshops in SLO, Chicago IL, NYC, and Sacramento.

Workshops with Santa Maria in-service teachers – participate in ongoing workshops for the grades 3-8 Santa Maria teachers, via grants secured by Kate Riley. 2015-2016

Provide mentorship for Cal Poly math instructor (Anna Kopcrak), to prepare instructors to assist in teaching the Math for Liberal Studies sequence 2015-2017

University Supervisor (Cal Poly Single Subject Credential Program) – serve as a University Supervisor for 3 students in the Mathematics Single Subject Credential Program 2015-current

STaR Program – Service, Teaching, and Research in Mathematics Education: Supporting Early Career Professionals (Sponsored by AMTE – Association of Mathematics Teacher Educators). Competitive invitation to the program, which includes approximately 30 participants each year (since 2010). Participation while at Cal Poly. 2014-2015

PRISM – multi-institutional collaboration to study student reflection, persistence, and feedback strategies in the context of science education. The group, containing D. Champney, D. Dounas-Frazer (formerly of Cal Poly), D. Reinholz (CU Boulder), and several college instructors and high school teachers met in Berkeley in June, 2014 for a co-organized retreat and workshop to plan future collaboration. Co-organized and facilitated by Champney, Dounas-Frazer, and Reinholz. Participation while at Cal Poly. 2014

MPWR (Mentoring and Partnerships for Women in RUME) seminar for women math educators in the RUME community. Competitive invitation to the program, which includes approximately 50 women in mathematics positions. Participation while at Cal Poly. 2013

Member – Faculty Learning Community on Inclusivity (Cal Poly). 2013-2014

Member – RUME (Research in Undergraduate Mathematics Education) Working Group on students' understanding of limits and infinity. Prior to *and* during time at Cal Poly. 2010-current

## **(5) SERVICE AND UNIVERSITY CITIZENSHIP**

### **(5A) CAL POLY SERVICE**

Math Department Frost Fund Undergraduate Research Coordinator 2017-current

Math 461/462 Senior Project Coordinator (Cal Poly); includes organizing student colloquia during the academic year, and advising all students in Math 461 to find senior project advisors and suitable projects 2017-current

Service on Professional Grievance Committee (Chair) 2017

GWR Grader – Special Consultant position to grade GWR 3 times annually, with the English Department 2016-current

Organizer - Math Department “Math Education Day,” in collaboration with CP Math Club; organized activities for a day of math and math education activities, as well as an external speaker to give a Math Ed Colloquium for a broad audience 2017

Math Department Representative, Mustang Family Weekend (Cal Poly) 2014, 2015, 2016

Math Department Representative, Polycultural Day (Cal Poly) 2015

Math Department Open House Team (Cal Poly). (Open House coordinator (2015-current)) 2014-current

Math Department Assessment Committee (Cal Poly)	2013-2017
Facilitator Supervisor (With Emily Hamilton); Supervise math facilitators who coordinate and run supplementary study sessions for enrolled students in the introduction to proof, linear algebra, real analysis, and abstract algebra courses; includes ongoing training of facilitators (Cal Poly)	2013-current
Faculty Scholar; Hold open office hours and advising appointments in the Science and Mathematics Residence Hall (Muir Hall, Cal Poly)	2013-2017
Commission on Teacher Credentialing reviews for CSU Mathematics Education programming	2014

#### **(5B) EXTERNAL SERVICE**

Transfer Academy instructor and mentor (Los Medanos College); work with and teach developmental education students who have self-identified as transfer-bound, but do not meet minimum requirements for transfer	2012
Course-level student learning outcome (CSLO) assessment committee; to conduct holistic student assessment for differential equations and vector calculus, and revamp course expectations and set criteria for course objectives (Los Medanos College)	2011-2012
CalTeach Program Intern mentor [ <a href="http://calteach.berkeley.edu/">http://calteach.berkeley.edu/</a> ] – research mentor to undergraduate students who wish to pursue a teaching credential upon graduation	2010-2011
Campus-wide Task Force for rewriting the campus-wide note taking policy; setting guidelines for what constitutes intellectual property of instructors, and protecting instructors from unlawful distribution of course materials (UC Berkeley)	2011
Undergraduate Graduate Mentorship Program; acting as a mentor for undergraduates working through the process of choosing and applying to graduate programs in psychology and education (UC Berkeley)	2010

#### **(5C) MEMBERSHIPS**

California Mathematics Council (CMC)  
 American Educational Research Association (AERA)  
 Mathematical Association of America (MAA)  
 American Association of Physics Teachers (AAPT)  
 Association of Mathematics Teacher Educators (AMTE)  
 Phi Beta Kappa

#### **(5D) REVIEWER/REFEREE**

Cognition and Instruction; Reviewer  
 PRIMUS Special Issue on Inquiry Based Learning; Reviewer  
 Association for Women in Mathematics; Travel Grant Reviewer  
 Association for Women in Mathematics; Essay Award Reviewer  
 National Council of Teachers of Mathematics; Conference Reviewer  
 Research in Undergraduate Mathematics Education; Conference Reviewer

#### **(5E) AWARDS**

CSU Assigned Time for Exceptional Levels of Service to Students; Provost Office, Cal Poly; AY 2017-2018