

LAWRENCE HORVATH

lhorvath@sfsu.edu

**EDUCATION**

- Ph.D., Science Education, 2008, University of California, Davis, CA
- M.A., Secondary Education, 1994, San Francisco State University, San Francisco, CA
- B.S., Zoology, 1984, University of California, Davis, CA

**Professional Credentials, Licenses and Certifications**

- Single Subject Clear Credential, 1986, Life Science, Sonoma State University, Sonoma, CA

**PROFESSIONAL POSITION AND RANKS**

**San Francisco State University, San Francisco, California** 2007 – 2023

*Professor and Chair, Department of Secondary Education* 2022 – present

*Associate Professor, Department of Secondary Education* 2016 – 2022

*Co-Director Center for Science and Math Education, College of Science and Engineering, 2021 - 2022*

*Acting Director Center for Science and Math Education, College of Science and Engineering, 2020 – 2021*

*Associate Director Center for Science and Math Education, College of Science and Engineering, 2017 - 2020*

*Assistant Professor, Department of Secondary Education* 2009 – 2016

*Lecturer, Department of Secondary Education* 2007 – 2009

**University of California, Davis, California** 2001 – 2006

*Associate Instructor, 2003-2006*

Responsibilities: Education 100: Introduction to Schools and Associate Supervisor for Science Teacher Education

*Graduate Student Researcher, 2001 – 2004*

Science Education Research: Supervisor Dr. Cynthia Passmore

Public Service Research Program, Supervisor Dr. Joyce Guttstein

*Teaching Assistant, 2001 – 2003*

Responsibilities: Biological Sciences 1B, Introductory Biology; Biological Sciences 10, General Biology; Education 206A, Inquiry into Classroom Practice: Traditions and Approaches; Education 120, Social and Philosophical Foundations of Education

**California State University, Chico, California** 2001 – 2001

*Field Supervisor for Student Teachers*

**California Primate Research Center, Davis, California** 1983 – 1984

*Behavioral Biology Intern*

**K-12 Teaching Experience**

**Istanbul International Community School, Istanbul, Turkey** 1997 – 2000

*Science Teacher: International Baccalaureate Higher Level and Standard Level: Biology, Biology 9, and Science 7*

**American Overseas School of Rome, Italy** 1994 – 1997  
*Science Teacher: International Baccalaureate Standard Level Chemistry, Advanced Placement Chemistry, General Chemistry, and Biology 9*

**San Marin High School, Novato, California** 1993 – 1994  
*Science Teacher: Biology and Integrated Science*

**San Jose Middle School, Novato, California** 1987 – 1993  
*Science Teacher: Life Science and Integrated Science*

#### **MAJOR THESIS ADVISOR/FIRST READER**

*Reiff, Elizabeth Jones (May 2023), The Shape of the Earth's Surface: Stepping Outside to Make Sense of the World Around Us, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Wong, Jeffrey (May 2023), A Game Based Periodic Table Curriculum, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Lee, Jordan (May 2023), Increasing Ocean Literacy: A High School Marine Invertebrate Ecology Unit, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Amirapu, Anjana (May 2022), Science Research Course Influence on Students' Interest in Scientific Research, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Fang, Yujun (May 2022), Implementing Project-Based Learning Strategies to Help Students Understand How Roller Coasters Work, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Courser, Catherine (May 2022), Digital vs. Physical Science Notebooks: Student Preference and Impact on Student Learning Outcomes, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*\*Tangonan-Gutierrez, Megan (May 2022), Crash Course: An Experience of Culturally Relevant Teaching Through Project Based Learning, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Connell Dauwe, Brooke (May 2021), Integrating social Emotional Learning Strategies into Science Curriculum and attitudes Towards Science, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Cross, Bryanne (May 2021), Achievement of collaborative learning in an English Language Learner ELA Classroom, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Sackstedder, Jessica (May 2021), Integrating Design-Based Learning into a Life Science Classroom: A Curricular Innovation Project, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Smith, Lauren (May 2021), Curriculum innovation Project: Investigating how an Interdisciplinary Project Based Unit engages students in the use of Cross cutting Concepts, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

*Von Tersch, Patricia (May 2021), Using Gamified Formative Assessments to Monitor Student Learning, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.*

- Zhang, Anderson (May 2021), *The Use of Scenario-Based Instruction for a High School EMR Class*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- Berwick, Ariel (August 2020), *Investigating How Student Note Taking and Organizational Strategies Support Middle School Science*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- Tsang, Fiona (August 2020), *Examining the Effects of Grouping Configurations for English Language Learners on their Acquisition of science Content*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- Gougoumis, Byron (May 2020), *Complex instruction Groupwork: The effect on High School Biology Engagement and Achievement*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- \*Miller, Lindsay (May 2019), *Professional Development's Effect on Teacher Readiness Before and After Implementation of the Next Generation Science Standards*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- \*Newman, Mia Janelle (May 2017), *The Impact of Direct Instruction on Middle School Students' Abilities to Engage in Scientific Argumentation*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- Herbst, Jeffrey D (May 2014), *Engaging English Learners in Science Reading: The Effects of Pre-Reading Instruction on Comprehension*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- LaCount, Nicole (December 2011), *Impact of Outdoor education on Science Related Attitudes in 5<sup>th</sup> Graders*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- \*Heid, Analise Elliot (December 2010), *Journey's Into Inquiry Based Science: Instructional Strategies, Goals & Supporting Scientific Literacy*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- Liu, Laura Kipperman (December 2009), *Teaching Chemistry to English learners without losing it all in translation*, Master of Arts in Education: Concentration in Secondary Education, San Francisco State University.
- \* Recipient of the Graduate Achievement Award for the Graduate College of Education

### **Awards**

Outstanding Service Award for Leadership (2013) as the PACT Coordinator for Secondary Education presented by the San Francisco State University Department of Secondary Education, San Francisco, CA

Award for Outstanding Leadership and Service to Education (2007) presented by the Graduate Group in Education, University of California, Davis, CA.

### **Fellowships**

University of California, Davis, CA  
 Block Grant Fellowships (2001-2007), School of Education  
 Graduate Studies Travel Grant  
 Graduate Teaching Fellowship (2006), School of Education  
 Summer Research Fellowship (2006), School of Education  
 Teacher Education Fellow (2002-2006), School of Education

## GRANTS

### Principal Investigator

Aligning the Science Teacher Education Pathway (A-STEP) (2019-2023), Horvath, L. subaward PI. \$107,000 from Korb, M., Aligning the Science Teacher Education Pathway. A Networked Improvement Community, \$3,577,306.00. National Science Foundation.

<https://www.nextgenaset.org/a-step/> Retrieved NSF:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1908900](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1908900)

Western Regional Noyce Alliance (2018-2022). Horvath L, PI; Seashore, K., Hoellwarth, C., Hsu E., Ross, D., and Keller, J. Co-PIs. Robert Noyce Scholarship Program, \$3,299,995, National Science Foundation. Retrieved:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1745263&HistoricalAwards=false](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1745263&HistoricalAwards=false)

Collaborative Research: A Study of the Impact of Pre-Service Teacher Research Experience on Effectiveness, Persistence, and Retention (2017-2022). Horvath L. PI Noyce Track 4 Grant with Cal Poly SLO Prime, Fresno State, and Sacramento State. \$60,000 subaward. National Science Foundation.

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1660715](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1660715)

San Francisco State Robert Noyce Teacher Scholarship Program (2011-2017). Horvath L. PI; Hsu E., Cool A., Co-PIs. Noyce Track 1 \$1,200,000. National Science Foundation.

Retrieved: [https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1136335](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1136335)

Western Region Noyce Initiative (2013-2014), Horvath, L. subaward PI for planning and hosting Western Regional Noyce Conference in San Francisco, Fall 2014. \$51,000. National Science Foundation.

### Co-Principal Investigator

CS4NorthCal: Scaling an Evidence-based Model for Teacher Preparation and Support to Provide Equitable and Inclusive CS Education in California's High Schools (2022-2025).

Hue, H. PI; Horvath, L., LehmKhul Dahkwe, V., Virmani, R., and Baines, A. Co-PIs. \$2,000,000. National Science Foundation

STEM Teaching Towards a Just and Equitable Society (STAJES) (2019-2024). Seashore, K. PI; Coble K., Horvath L., Hsu E., and Yue H., Co-PIs. Noyce Track 1 \$1,200,000. National Science Foundation. Retrieved:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1852881](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1852881)

Computing for all Levels and Learners (2016-2019). Hsu, E. PI; Yoon, I., Horvath L., Ryan J, Co-PIs. \$299,942. National Science Foundation. Retrieved:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1649277](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1649277)

Western Region Noyce Initiative (2013-2017). Andrews, D. PI; Horvath L., Keller, J., and Ross, D., Co-PIs. \$1,430,062.00 intended and \$1,716,052.00 awarded. National Science Foundation. Retrieved:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1418852](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1418852)

### Lead Roles

CSU Liaison for the STEM Teacher's as Researchers (STAR) program (2009-present). Vokos S. Director. Cal Poly San Luis Obispo Center for Excellence in Science and Math Education (CESaME). National Science Foundation. <https://star-web.csm.calpoly.edu/> Specific reference: <https://star-web.csm.calpoly.edu/2019/10/30/meet-aala-al-hasan-2/>

- Teachers on The Estuary (ToTE) grant, Horvath, L., Lead Secondary Science Educator. Nature-based rocky habitat restoration and education (2018-2021). Nielsen, K. PI; Zabin C. Co-PI, \$200,000, NOAA California Coastal Conservancy. <https://sfbaynerr.sfsu.edu/rocky-shores-workshop-teachers>
- NGSS Integrating Engineering and Technology with Math and Science (iTEAMS) Grant (2014-2017). Horvath, L., Lead Professional Developer. Math and Science Partnership with San Rafael City Schools. PI Dr. Eric Hsu, San Francisco State University. \$1,500,000 California Department of Education.

## PUBLICATIONS

### Publications – Peer Reviewed

- Krim, J.S., Coté, L.E., Schwartz, R.S., Stone, E.M., Cleaves, J.J., Barry, K.J., Burgess, W., Buxner, S.R., Gerton, J.M., Horvath, L., Keller, J.M., Lee, S.C., and Rebar, B. (2019). Models and impacts of science research experiences: A review of the literature of CUREs, UREs, and TREs. *CBE—Life Sciences Education*, 18(4), p.65. <https://doi.org/10.1187/cbe.19-03-0069>
- Yoon, I., Lyons J., Horvath, L., Yue, H., Twarek, B., Remold, J., & Hsu, E., (2018). SFSU Includes on SF CALL (Computing for All Levels and Learners. CoNECD – The Collaborative Network for Engineering and Computing Diversity Conference. Retrieved from <https://par.nsf.gov/biblio/10078705>
- \*Horvath, L. & Brownstein, E. (2016). Next Generation Science Standards and edTPA: Evidence of Science and Engineering Practices. *Electronic Journal of Science Education*, 20(4). Retrieved from <http://ejse.southwestern.edu/article/view/16090>.

In Press:

- Keller, J., Buxner, S., Bailey, E., Citkowicz, M., Donnelly-Hermosillo, D., Horvath L., Moreno, D., Sessoms, D., Vokos, S., Yisak, M., and Zhu, B. (2023) Student Outcomes of Practicing Teachers who Engaged in a Pre-Service or Early Career Research Experience Teacher (RET) Program. *Science Education*.

### Publications – Editor Reviewed

- Buxner, S., Vokos, S., Keller, J., Good, C., Donnelly-Hermosillo, D., Horvath, L., Sessoms, D., Bailey, E., Citkowicz, M., Yisak, M., Moreno, D., Zhu, D., Fulbeck, E., Chen, C., & Pardo, M. (2022). Impacts of the STEM Teacher and Researcher (STAR) program on teachers, students, and classrooms. In L Manier, T.T. York and B., Calinger (Eds.) *Research in practice: Preparing and retaining K-12 STEM teachers in high-need school districts*. AAAS. Washington, DC.
- Brownstein, E., Stansbury, K., Whittaker, A., and Horvath, L. (2016). “Next Generation Science Standards (NGSS) and edTPA Crosswalk.” Updated March 2016
- Horvath, L. & Marshall, J. (2014). The Natural Sciences: Understanding the Natural World. Chapter in Marshall, J. & Donahue, D., *Art-Centered Learning Across the Curriculum: Integrating Contemporary Art in the Secondary School Classroom*. Teacher’s College Press, September 7.

## Presentations – Peer Reviewed

- Buxner, S., Horvath, L., Lemmer, B., Yisak, M., Bakerman, M. & Nelson, J. (2023, April). Results of an impact evaluation study of early career teachers engaging in summer modeling institutes. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.
- Buxner, S., Moreno, D., Horvath L., Keller, J., Yisak, M., Zhu, B., Sessoms, D., Donnelly-Hermosillo, D., Bailey, E., and Vokos, S., (2021). Research Experience Enriches Teachers' Classroom Practices Related to Science and Engineering Practices and STEM Careers. National Association for Research in Science Teaching International Conference. Virtual. April 10. Retrieved from <https://narst.org/conferences/2021-annual-conference>.
- Ross, D., and Horvath, L. (2021). Leveraging MSTI and Noyce to support recruitment of physics teachers. SoCAL PhysTEC Regional Network Conference, California State University, January 20. <https://www.csulb.edu/physics-astronomy/phystec-network/phystec-conference-2021-tentative-schedule>.
- Lardy, C., Ross, D., Vaughn, M., Horvath, L., Martin-Hansen, L., Gomez-Zweip, S., and Song, Y., (2021). Facilitating Discourse and Integration of NGSS in Science Methods Courses With the ASET Toolkit. Paper accepted for presentation at the Association of Science Teacher Educators Virtual Conference, January 14.
- Horvath, L., Yisak, M., Lemmer, B., Buxner, S., and Nelson, J. (2021) The Western Regional Noyce Alliance (WRNA) – Shifting Research and Evaluation Strategies in Response to COVID-19. Paper presentation at the Association of Science Teacher Educators Virtual Conference, January 14.
- Buxner, S., Krim, J.S., Coté, L.E., Schwartz, R.S., Stone, E.M., Cleeves, J.J., Horvath, L. Keller, J.M., Lee, SC., and Rebar, B. (2020) Revisiting the Impact of Science Research Experiences: A Critical Review of RETs, CUREs and REUs. Roundtable Presentation at the National Association for Research in Science Teaching International Conference. Portland, OR. March 15-18. <https://narst.org/conferences/2020-annual-conference>
- Moreno, D.L., Cruz, A.R., Buxner, S., Keller, J.M., Horvath, L., Sessoms, D., Donnelly-Hermosillo, D., Bailey, E.K., and Zhu, B. (2020). Activity Theory and Identity: A Framework for Investigating Teacher Research Experiences and Classroom Practices. National Association for Research in Science Teaching International Conference. Portland, OR. March 15-18. <https://narst.org/conferences/2020-annual-conference>
- Bartolone, L., Cominsky, L., Horvath, L., Korb, M., and Peticolas, L. (2020). Incorporating NASA Astrophysics Resources into Pre-Service Science Methods Courses. Paper Presentation at the Far West Association of Science Teachers/Hawaii International Conference on Education, Honolulu HI, Jan 4.
- Horvath, L., Buxner, S., Rebar, B., Cote, L., Keller, J., and Stone, L. (2020). Collaborative Around Research Experiences for Teachers (CARET): Assessing Impacts Across Programs. Poster presentation at the Far West Association of Science Teachers/Hawaii International Conference on Education, Honolulu HI, Jan 4.
- Moreno D., Cruz A., Buxner S., Keller J., Horvath L., and Donnelly D. (2019). Research Experiences and Teacher Retention, Persistence, and Practice: Triangulating Teacher Accounts with Observation and Student Data. National Alliance for Broader Impacts Summit. Tucson, AZ. April 30. <https://researchinsociety.org/aris-summits/summit-2019/>
- Sinapuelas, M., Lardy, C., Horvath, L., Ross, D., Houle Vaughn, M., Xiang, L., Korb, M., and DiStefano, R. (2018). Identifying phenomenon for Next Generation Science Standards:

- Using preservice teacher data to inform instruction in science methods courses. Paper accepted at the American Educational Research Association Conference, New York, NY, April 13. <https://www.aera.net/Events-Meetings/Annual-Meeting/2018-Annual-Meeting-Program>
- Sinapuelas, M., Houle Vaughn, M., Xiang, L., Ross, D., Horvath, L., Lardy, C., Korb, M and DiStefano, R. (2018). Phenomena to Promote Scientific Literacy: Preservice Teacher Data Informing Instruction in Science Methods Courses. Paper accepted at the National Association for Research in Science Teaching Conference, Atlanta, GA, March 12-14. <https://narst.org/conferences/2018-annual-conference>
- Lardy, C., Huang, H., Korb., M., Sinapuelas, M., DiStefano, R. Ross, D., Horvath, L., & Claesgens, J. (2018). Preservice Secondary Science Teachers' Developing Understanding of the Science Practice of Analyzing and Interpreting Data. Paper accepted for presentation at the Association of Science Teacher Educators Conference, Baltimore, MD, January 5. Retrieved from <https://theaste.org/publications/proceedings/2018-proceedings/>
- Horvath, L., Avani, N. and Brownstein, E., (2016). "An Inquiry Approach to implementing edTPA: Building Bridges to Support Exemplary Teaching Aligned with Content Standards." At the annual edTPA Implementation Conference, 2016 in Savanna GA, March 31-April 2.
- Horvath, L., Keller, J. & Nelson, F., Digrius, D., & Coble C. (2015). Recruiting and Preparing STEM Teachers through Partnerships and Engagement in Mathematical, Scientific, and Engineering Practices. Roundtable presentation at the APLU Science and Mathematics Teacher Imperative National Conference, New Orleans, Louisiana, June 3.
- Horvath, L., Brownstein, E., & Whittaker A. (2015). Bringing Together the NGSS, EdTPA and Science Teacher Preparation: A Roundtable with Seasoned Implementers. Presentation at the Association of Science Teacher Educators Conference, Portland, OR, January 9.
- Horvath, L. & Avani N. (2014). Transitioning from the PACT to the edTPA: What do we Gain and what do we Lose? Presentation at the 2014 PACT and edTPA Implementation Conference, Los Angeles, CA, October 25.
- Bissell, J., Horvath, L., Keller, J., Sessoms, D., & Nelson, F. (2014). Innovative Partnerships Preparing K-8 Teachers for Excellence in the NGSS. Presentation at the California STEM Symposium, San Diego, CA, September 22.
- Bissell, J., Nelson, F., Ellis, M., Keller, J. & Horvath, L. (2014). California State University (CSU) and the New Standards: Partnerships supporting the CCCSS, NGSS and College and Career Readiness Standards. CSU panel presentation at the APLU Science and Mathematics Teacher Imperative National Conference, Milwaukee, WI, June 4.
- Horvath, L., Chan, J. & Chau, D., Russo-Tait, T., & Evans, A. (2013). Educators, Equity, Enrichment: STEM Ed at San Francisco State. Presentation at the California STEM Symposium, Sacramento, CA, November 18.
- Horvath, L. & Marshall J. (2013). Science, Art and the Four Dimensions of Understanding. Workshop presented at the Contra Costa Office of Education Science, Technology, Engineering, Art and Mathematics (STEAM) Colloquium, San Ramon, CA, February 8.
- Keller, J., Bonsangue, M., Andrews, D., & Horvath, L. (2012). Robert Noyce Scholarship Programs: Promising Strategies for Promoting Science and Mathematical Teacher Quality in Recruitment, Preparation, Mentoring/Induction and Professional



- Development. CSU panel presentation at the APLU Science and Mathematics Teacher Imperative National Conference, Alexandria, VA, June 7.
- Horvath, L. (2012). The San Francisco State Robert Noyce Teacher Scholarship Program: Preparing STEM Teacher Leaders and Researchers. Poster presented at the APLU Science and Mathematics Teacher Imperative National Conference, Alexandria, VA, June 7.
- Horvath, L. & Avani, N. (2012). Embedding the Performance Assessment for California Teachers (PACT) in Secondary Education at San Francisco State University: Using "TASKSTREAM" for credential candidate support in successfully completing the TPA and to inform program improvement. Paper presented at the California Council on Teacher Education Spring Conference, San Jose, CA, March 30.
- Horvath, L. (2012). The STEM Summer Institute: Opening the STEM Teaching Pathway for Community College Students. Roundtable presentation at the Association of Science Teacher Educators Conference, Clearwater Beach, FL, January 6.
- Avani, N. & Horvath, L. (2011). "Using TASKSTREAM for Success:" Passing the Performance Assessment for California Teachers for Candidates in Secondary Education. Poster presentation at the 9<sup>th</sup> Annual Hawaii International Conference on Education, Waikiki, HI, January 7.
- Horvath, L. (2010). Prospective science teacher's perspectives on inquiry in the context of engaging in summer research internships. Poster presented at the Association of Science Teacher Educators Conference, Sacramento, CA, January 15.
- Horvath, L. & Passmore, C. (2008). Pre-service science teachers' construction of inquiry in the context of planning and teaching inquiry-based lessons. Paper presented at the National Association of Research in Science Teaching Conference, Baltimore, MD, April 2.
- Horvath, L. & Passmore, C. (2008). Tangled up in inquiry: Pre-service science teachers changing perspectives on inquiry in the context of planning and teaching inquiry-based lessons. Paper presented at the Association of Science Teacher Educators Conference, St. Louis, MO, January 11.
- Horvath, L. & Pomeroy J.R. (2007). Performance assessments in teacher education: Making lemonade out of lemons. Poster presented at the Association of Science Teacher Educators Conference, Clearwater, FL, January 4.
- Passmore, C., Horvath, L., Nemer, E., Hedman, R. & Laddish, K. (2005). Exploring Student Conceptions of Density and Ocean Currents. Paper presented at the National Association of Research in Science Teaching Conference, Dallas, TX, April 6.
- Guttstein, J., Knudsen, K., Horvath, L. & Aanderud, A. (2005). Perceived Impact of Informal-Formal Educator Partnerships on Student Engagement and Environmental Awareness. Paper presented at the National Association of Research in Science Teaching Conference, Dallas, TX, April 4.



## Presentations Invited

- Ham, E., Horvath, L. & Vokos, S. (2017). Research Experiences for K-12 Teachers and their Connections to Undergraduate Research Experiences. Invited Presentation at Investigating Learning Outcomes from Undergraduate Research Experiences Conference, Berkeley, CA, October 27.
- Horvath, L. (2017). Students figuring it out themselves: Shifting frames in science teacher education. Invited talk at the UC Berkeley Graduate School of Education Fall Colloquium Series, Berkeley, CA, October 23.  
<https://docs.google.com/spreadsheets/u/1/d/1zveWMFgGxzgTgFkZkdRMRz5rGSQReubQbu43O37UUCI/pubhtml#>
- Horvath, L., Sessoms, D. & Grant, M. (2014). Embedding the NGSS in Teacher Preparation Programs. Presentation and Workshop at the CSU Regional Professional Learning Meeting on Educator Preparation held at Sacramento State University, Sacramento, CA., May 5.
- Horvath, L. & Marshall J. (2013). Science and Art and the Four Dimensions of Understanding. Invited workshop presented for the Bay Area Writing Project at the Chabot Space and Science Center, Oakland, CA., October 9.
- Hsu, E., Akom, A., Domingo, C., Horvath, L. & Hiles, M. (2013). STEM Education at San Francisco State university. Invited Presentation at the Investiture of President Leslie Wong, San Francisco, CA, March.

## Presentations Non-Juried

- Buxner, S., Moreno, D., Keller, J., Horvath, L., Bailey, E., Donnelly-Hermosillo, D., Sessoms, D., Vokos, S., Citkowicz, M. Yisak, M., Zhu, B., Fullbeck, E., Chen, C. & Pardo, M. (2022, July). Impacts of STEM Teacher and Researcher (STAR) on teachers' practices and student outcomes. Presentation at the 2022 Noyce Summit, Washington, DC.
- Horvath, L., Nelson, J., Yisak, M., Lemmer, B., & Buxner, S., (2022, July). Studying the impact of the Western Regional Noyce Alliance. Presentation at the 2022 Noyce Summit, Washington, DC.
- Bakerman, M., Buxner, S., Horvath, L., Lemmer, B., Yisak, M., & Nelson, J. (2022, December). Results of an impact evaluation of modeling in the classroom during COVID 19. Presentation at the Fall Meeting of the American Geophysical Union Meeting, Chicago, IL, ED15F-0383.
- Bakerman, M., Buxner, S., Horvath, L., Vokos, S., Yisak, M., Lemmer, B., Nelson, J., Good, C., Wakeman, K., and Beekman, M. (Accepted 2021). Outcomes for Science and Math Teachers Who have participated in NSF-Funded Intensive Summer Research Internships or Modeling Institutes. American Geophysical Union Fall Meeting.
- \*Buxner, S., Bakerman, M., Horvath, L., Nelson, J.K., Yisak, M. and Lemmer, B., (2020). Supporting Student Engagement in Science and Math Practices through Noyce Professional Development and Support. In American Geophysical Union Fall Meeting Abstracts (Vol. 2020, pp. ED029-0012).
- Horvath, L., Seashore, K., Hsu, E., Nelson, J., Hoellwarth, C., and Ross, D., (2020). "Impact Study – Classroom Observations, Surveys and Interviews." Presentation 2020 Noyce Virtual Summit. Washington DC., August 5.

- Horvath, L., (2019). "The Western Regional Noyce Alliance." Poster Presentation 2019 Noyce Summit. Washington DC., July 10.
- Cruz, A., Moreno, D., Buxner, S., Bailey, E., Keller J., Fulbeck E., Sessoms D., Horvath L., and Donnelly, D., (2019). STEM Teacher Persistence, Retention, and Teaching Practices Related to Research Experiences: Preliminary Findings Connecting Student Development to Broader Impacts Opportunities. Poster Presentation 2019 Noyce Virtual Summit. Washington DC. April 30.
- Horvath, L. (2017). Mentoring and Modeling within the San Francisco State Teacher Robert Noyce Teacher Scholarship Program. Poster presented at the 2017 Noyce Summit Conference, Washington DC., July 20.
- Keller, J.M., E. Fulbeck, S. Buxner, D. Sessoms, L. Horvath, D. Donnelly (2017). "A Study of the Impact of Pre-Service Teacher Research Experience on Effectiveness, Persistence, and Retention," Poster presented at the 2017 Noyce Summit. Washington DC. July 20.
- Keller, J., Dwyer, J., Burgess, W., Horvath, L., Johnson B., Krim, J., Rebar, B., and Schwartz, R. (2017). Collaborative Around Research experiences for Teachers (CARET). Roundtable presentation at the APLU NSEC Conference, New Orleans, LA., June 24.
- Horvath, L. (2016). Mentoring and Modeling within the San Francisco State Teacher Robert Noyce Teacher Scholarship Program. Poster presented at the 2016 Noyce Summit Conference, Washington DC., July 20.
- Horvath, L. (2014). The San Francisco State Robert Noyce Teacher Scholarship Program. Poster presented at the Ninth Annual NSF Robert Noyce Teacher Scholarship Program, Washington, DC., July 19.
- Horvath, L. (2013). The San Francisco State Robert Noyce Teacher Scholarship Program. Poster presented at the Eighth Annual NSF Robert Noyce Teacher Scholarship Program, Washington, DC., May 30.
- Horvath, L. & Avani N. (2012). Integrating Assessment Part 2. Presentation at the 2012 PACT and edTPA Implementation Conference, San Diego, CA, November 1.
- Horvath, L., Avani N. & Herz, D. (2012). Mentoring New Implementers. Presentation at the 2012 PACT and edTPA Implementation Conference, San Diego, CA, November 1.
- Horvath, L. (2012). The San Francisco State Robert Noyce Teacher Scholarship Program. Poster presented at the Seventh Annual NSF Robert Noyce Teacher Scholarship Program, Washington, DC., May 24.
- Horvath, L. & Avani N. (2011). Using PACT data for program improvement. Presentation at the 2011 PACT/TPAC Implementation Conference, San Diego, CA, October 20.
- Horvath, L., Avani, N., Nelson, C. & Felton, M. (2010). Ramping up Quickly: Engaging faculty and staff with the PACT. Presentation at the 2010 PACT/TPAC Implementation Conference, San Diego, CA, November 4.
- Horvath, L. & Avani, N. (2009). Ramping up Quickly: "Living the Tipping Point." Presentation at the 2009 PACT Implementation Conference, Santa Barbara, CA, October 22.
- Pomeroy, J.R., Varellas, D. & Horvath L. (2005). Workshop on Mentoring Student Teachers for the Future presented at the California Science Education Conference, Palm Springs, CA, October 29.

\*Indicates equal contribution of all authors

## **CURRICULAR INNOVATIONS**

SFSU Program Liaison for ‘Rocks on the Move’ with Golden Gate National Park Geologists.  
Core curriculum for ‘Park Teachers Geology’ (2008-2019).

<https://www.nps.gov/goga/learn/education/background-of-park-teachers-geology.htm>

Development team member and writer for the edTPA Secondary Science Assessment Handbook, Middle Level Science Assessment Handbook, and the Secondary and Middle Level Science Thinking Behind the Rubrics. Stanford Center for Assessment, Learning and Equity (SCALE) and Pearson publications.

## **CONTRIBUTIONS TO CAMPUS AND COMMUNITY**

### **Campus**

Secondary Education RTP committee Chair (2020-22)

Secondary Education RTP committee (2019-21)

Secondary Education Math Educator search committee (2018-19)

T2S2 Climate Change Educator search committee (2018-19)

Search committee for Dean of the College of Science and Engineering (2018-19)

Search committee for Dean of the Graduate College of Education (2017-18)

Interim Director of the Center for Science and Math Education (Fall 2017)

Lead Science Faculty for the Center for Science and Math Education, (2010-17)

Professional Development Committee (PDC) (2015-16)

Area B Subcommittee for General Education Course Certification, (2010-14)

Teacher Credentialing Committee, (2009-14)

College of Education Sabbatical Committee, (2009-11)

Search committee for the Director of The Center for Science and Math Education, (2009)

PACT Coordination and Support, Secondary Education, (2008-13)

Secondary Education representative on College of Education NCATE Evaluation Committee, (2007-11)

Student Teaching Task Force, Secondary Education, (2007-08)

### **Community**

Chair, NSF Western Regional Noyce Network Advisory Board (2022-present)

Invited Member of the Midwest Noyce Conference Advisory Board (2019-present)

Invited member of the edTPA National Academy as an Implementation Support Consultant.

Stanford Center for Assessment Learning and Equity (SCALE) and the American Association of Colleges for Teacher Education (AACTE) (2015-2023)

Collaborating researcher with Strategic Education Research Partnership (SERP) San Francisco and Oakland (2012-2020)

CSU Liaison for the STEM Teachers as Researchers (STAR) program at Lawrence Berkeley National Laboratory, San Francisco State University, Romberg Tiburon Center, and the SLAC National Accelerator Laboratory (2009-13, 2015-2019)

Proposal reviewer for the annual Association of Science Teacher Educators International Conference (2009-2018)

Benchmarker and Trainer of Trainers for the Performance Assessment for California Teachers (PACT) Consortium, Stanford University (2005-14)  
Consultant for the National Teacher Performance Assessment Consortium (TPAC), Stanford University (2010-14)  
Member of SED faculty working group to re-think the SFSU single subject teacher preparation program (2012-13)  
1/2011 – 6/2013 Consultant and Instructor for the STEM Summer Institute at City College of San Francisco (2011-13)  
Member of the California Science Teachers' Conference Committee for the 2008 conference, San Jose, CA (2007-08)  
Graduate student representative on the Committee to Rethink the Ph.D. Program, School of Education, University of California, Davis (2003-04)  
Co-Chair, Education Graduate Student Association, University of California, Davis (2002-03)  
Search committee member for Ag/Science faculty position, School of Education, University of California, Davis (2002)  
Faculty Representative to the Board, Istanbul International Community School, Istanbul, Turkey (1998-99)  
Science Department Coordinator, Istanbul International Community School, Istanbul, Turkey (1997-98)  
Member of Middle States Accreditation Team, Alexander Muss High School, Tel Aviv, Israel (1997)  
Member of Leadership Team, American Overseas School of Rome, Italy (1994-95)  
San Francisco State University Fellowship for Recombinant DNA Technology for Educators (1992)  
Chairperson of the School Site Council, San Jose Middle School, Novato, CA (1991-93)  
Mentor Teacher, Novato Unified School District, Novato, CA (1990-93)  
Science Department Chair, San Jose Middle School, Novato, CA (1990-93)

## **PROFESSIONAL ORGANIZATIONS**

American Association for the Advancement of Science (2017 - present)  
California Association of Science Educators (2004 – present)  
National Science Teachers Association (2004 – 2019)  
Association of Science Teacher Educators (2003 – present)  
National Association for Research in Science Teaching (2003 – present)