

Frederick Peinado Nelson
Liberal Studies
Kremen School of Education and Human Development
Multiple Subject
fnelson@csufresno.edu

Academic Degrees: *(Include teaching credentials, if any)*

Degree	Institution	Area of Emphasis
PhD	University of Florida	Science Education
MS	Kansas State University	Science Education
BS	Kansas State University	Physics Education

Professional Experience:

Dates	Position/Institution
2012-present	Faculty, California State University, Fresno
2006-2012	Faculty, University of North Florida
1999-2006	Faculty, University of North Florida

Faculty and Administrative Load: *(Should total 12 units each semester)*

<u>Fall 2018</u>		<u>Spring 2019</u>
CI175	3	
CI175	3	

Community Service

Dates	Organization	Activity/Accomplishments
Mar-19	Fresno State Arboretum Committee	Arbor Day Table Volunteer
Oct-19	California State University, Fresno	Environmental Science Program Review
2019	CSU Academic Senate	Appointment to Faculty Disciplinary Review Group
2018	Arcadia University	External Reviewer, promotion and tenure

University/School Service

Dates	Committee	Activity/Accomplishments
2016-present	Kremen Budget Committee	Committee member
2018-present	Kremen Scholarship Committee	Committee Member
2016-present	Undergraduate Academic Program Review Subcommittee	Committee Member
2015-present	Liberal Studies review Committee	Chair

Professional Association Memberships

Dates	Association/Organization	Role
2012-present	AERA	member
2012-present	California Science Teachers Association	Member
2000-present	National Science Teachers Association	Member

Publications (Selected)

Miller, L., Nelson, F. P., Yun, C., Bennett, L., & Phillips, E. L. (2019). "Am I doing what I think I'm doing?": The importance of a theoretical frame when integrating tablets in teacher education. *Educational Renaissance* 8, 20-28.

Nelson, F. L., Valadez, J. D., Brady, M., Pennycook, J., & Lopez, A. (2018). *Science framework for California public schools: Kindergarten through grade twelve, 2016, Grades 6-8*. Sacramento, CA: California Department of Education.

Nelson, F. L., Miller, L., & Yun, C. (2016). "It's OK to feel totally confused": Reflection without practice by preservice teachers in an introductory education course. *Reflective Practice: International and Multidisciplinary Perspectives* 17 (5), 648-661.

Sherchan, S., Pasha, F., Weinman, B., Nelson, F. L., Sharma, F. C., Therkelsen, J., & Drexler, D. (2016). Seven faculties in search of a mission: A proposed interdisciplinary course on water literacy. *Applied Environmental Education and Communication* 15 (2), 171-183.

Nelson, F. L. (2015). What we see when we look in the mirror: Conceptions of and intentions for reflection by science teacher educators. *Cogent Education* 2 (1), 1-17.

Wandeler, C. & Nelson, F. (2015). [A map of reflective practice for mentors and mentees.] *Eine Landkarte zur reflexiven Praxis für Mentoren und Mentees. Zwischen Theorie und Praxis: Ansprüche und Möglichkeiten in der Lehrer (innen) bildung. Festschrift zum 65. Geburtstag von Alois Niggli*, 131-146.

Tehrani, F., Papavasiliou, N., Nelson, F., Bohlin, C., & Brady, M. (2014, April). Engineering literacy: Educating prospective elementary teachers to lay the foundation for a more knowledgeable/well-prepared generation of engineering students. *Proceedings of the 2014 American Society for Engineering*

Education Zone IV Conference, 399-412. Abstract retrieved from <http://tinyurl.com/ASEE2014-ConferenceProceedings>

Papers and Presentations (Selected)

Perry, J., & Nelson, F. P. (October 2019). CSU/CCC transfer model curriculum review: Elementary teacher education associate degree for transfer (ADT). Presentation at the Annual Convening of the Association of California Community College Teacher Education Programs, Los Angeles, CA.

Donnelly, D., Click, J., Nelson, F. P., Andrews, D. (August 2019). Enhancing pre-service elementary teachers'™ physical science conceptual knowledge and ownership. Presentation at the 13th Conference of the European Science Education Research Association, Bologna, Italy.

Sangha, A., Key, R., Donnelly, D., Nelson, F., & Andrews, D. (July 2019). Guided inquiry physical science for pre-service teachers and explanations of physical phenomenon, Poster presented at the American Association of Physics Teachers (AAPT) Conference, Provo, UT.

Nelson, F. P., Merlino, F. J., & Harootunian, G. (October 2018). STESSA: STEM teacher education and school strengthening activity: A U.S.-Egyptian cooperative initiative, Presentation at the California STEAM Symposium, Long Beach, CA.

Valadez, J. D. & Nelson, F. P. (October 2018). Science teaching, learning, and identity through community science workshops and makerspaces. Workshop presented at the National Science Teachers Association Area Conference on Science Education, Reno, NV.

Miller, L. R., Nelson, F. P., & Van Horn, S. (April 2018). A social justice orientation to reflective practice in teacher education: Asking a different set of questions. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.

Shin, M., & Nelson, F. P. (April 2018). Enacting culturally sustaining pedagogy in a STEM capstone course for preservice elementary teachers. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.

Miller, L. R., Nelson, F. P., & Van Horn, S. (October 2017). Promoting equity and social justice through reflective practice with preservice teachers. Paper presented at the California Council of Teacher Educators, San Diego, CA.

Nelson, F. P., Brady, M., Drexler, D., Mandaville, A., & Weinman, B. (2017, April). An uncommon read: Inviting faculty participation through relevant content and context. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Thomas, M. K., Nelson, F. P., Peterson, B. R., Liu, K., Lilly, T. K., & Miller, R. C. (2017, April). ePortfolios in teacher education: Challenges in preparing reflective practitioners. Presentation at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Yun, C., Bennett, L. H., Miller, L., Nelson, F. P., & Wahleithner, J. M. (2017, April). Toward focus group as self-study method. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Miller, L., Nelson, F. P., & Phillips, E. L. (2017, April). Exploring reflective thinking among preservice teachers in a virtual learning community. Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Wandeler, C., Tracz, S. M., Yun, C., Hart, S., Nelson, F. P., & Bennett, L. H. (2017, April). University faculty meets K-12 reality: What do future teachers need to learn? Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Tracz, S. M., Wandeler, C., Bennett, L. H., Yun, C., Nelson, F. P., & Hart, S. (2017, April). *Future teachers'™ concerns in undergraduate studies: "What if I can't™ teach it?"* □ Paper presented at the Annual Meeting of the American Educational Research Association, San Antonio, TX.

Miller, L. R., Nelson, F. P., & Van Horn, S. (2017, March). *Reflective practice for social justice*. Presentation at the 29th Annual Conference on Character and Civic Education, Fresno, CA.

Nelson, F. P. (2017, February). *Finding the low-hanging fruit in NGSS classroom implementation*. Presentation at the Western Regional Noyce Conference, Fresno, CA.

Valadez, J., Nelson, F. L., & Walter, E. (2016, November). *Designing elementary teacher preparation courses with a focus on stem-rich making practices*. Presentation at the National Science Teachers Association Area Conference, Portland, OR.

Miller, L. R., Nelson, F. L., & Phillips, E. L. (2016, October). *Searching for reflective dialogue in an online community with preservice teachers*. Paper presented at the 17th Annual Curriculum and Pedagogy Conference, Cleveland, OH.

Miller, L. R., Nelson, F. L., Bennett, L., & Yun, C. (2016, April). *"I'm not the expert anymore"*: Reconsidering educator roles in a tablet course for preservice teachers. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

Nelson, F. L., Brady, M., Mandaville, A., & Weinman, B. (2016, February). *Developing a place-based, contextually relevant common read experience across campus*. Poster presented at the Association of American Colleges & Universities Conference on General Education and Assessment, New Orleans, LA.

Nelson, F. L. (2015, October). *Building a risk-free environment: School leaders doing NGSS-oriented science*. Poster presented at the National Science Teachers Association Area Conference, Reno, NV.

Horvath, L., Keller, J., Nelson, F. L., Digrius, D., & Coble, C. (2015, June). *Recruiting and preparing STEM teachers through partnerships and engagement in mathematical, scientific, and engineering practices*. Paper presented at the National Conference of the Association of Public and Land-Grant Universities Science and Mathematics Teacher Imperative. New Orleans, LA.

Nelson, F. L., Miller, L., & Keeler, A. (2015, April). *Low risk of failure: Reflection without practice by preservice teachers in an introductory education course*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Nelson, F., Brady, M. (2015, April). *Connecting science learning for future teachers: Applying and assessing the three dimensions of the Next Generation Science Standards in teacher preparation courses*. Poster presented at the CSU STEM Summit. Pomona, CA.

Fry Bohlin, C., Nelson, F., Williams, D., Brady, M., Tehrani, F., Papavasiliou, N., Runde, K., Crask, L. (2015, April). *Integrating STEM into K-8 teacher preparation: Fresno State's™ liberal studies STEM concentration*. Poster presented at the CSU STEM Summit. Pomona, CA.

Nelson, F. L. (2015, February). *Using ranking tasks to examine student learning of crosscutting concepts*. In Bissell, J. (Chair), *The keys to success in K-6 NGSS implementation: Webinar II, cross-cutting concepts and CCSS alignment in NGSS*. Invited Panel in the webinar hosted by WestEd, San Francisco, CA. Available online at <http://www.wested.org/resources/next-generation-science-standards-ngss-implementation-ii/>

Nelson, F. L., Brady, M., Bohlin, C. F., & Tehrani, F. (2015, January). *Coherent science learning for future elementary teachers: Cross-disciplinary collaboration in STEM education*. Paper presented at the International Conference of the Association for Science Teacher Education, Portland, OR.

Brady, M., & Nelson, F. L. (2014, December). *Teaching rocks and minerals in context of dynamic Earth systems and interactions*. Poster presented at the Fall Meeting of the American Geophysical Union, San Francisco, CA.

Nelson, F. L., Brady, M., & Wandeler, C. (2014, November). *Connecting learning experiences for future teachers: Assessing and applying knowledge of crosscutting concepts that bridge disciplinary boundaries*. Poster presented at the Network for Academic Renewal National Conference of the American Association of Colleges and Universities, Atlanta, GA.

Nelson, F. L., & Keeler, A. (2014, November). *Reflection without practice: Development of reflective thinking by preservice teachers in an introductory course in curriculum, instruction, and technology*. Paper presented at the Annual Convention of the Association for Educational Communication and Technology, Jacksonville, FL.

Nelson, F., Brady, M., & Bohlin, C. F. (2014, September). *Making connections in science for future teachers*. Presentation at the Second Annual STEM Symposium, San Diego, CA.

Bissell, J., Horvath, L., Keller, J., Sessoms, D., & Nelson, F. (2014, September). *Innovative partnerships preparing K-8 teachers for excellence in the NGSS*. Presentation at the Second Annual STEM Symposium, San Diego, CA.

Young, B., Nelson, F., & Ellis, M. (2014, June). *California State University (CSU) and the new standards: Partnerships supporting the CCCSS, NGSS, and College and Career Readiness Standards*. Invited Panel at the National Conference of the Association of Public and Land-Grant Universities Science and Mathematics Teacher Imperative. Milwaukee, WI.

Nelson, F. L. (2014, April). *What we see when we look in the mirror: Conceptions and intentions for reflection by science teacher educators*. Paper presented at the Annual Meeting of the American Educational Research Association, Philadelphia, PA.

Tehrani, F., Nelson, F., Papavasiliou, N., Bohlin, C.F., & Brady, M. (2014, April). *Integrating STEM into K-6 teacher education: A multi-disciplinary approach to faculty collaboration*. Poster presented at the 2014 American Society for Engineering Education Zone IV Conference, Long Beach, CA.

Tehrani, F., Papavasiliou, N., Nelson, F., & Bohlin, C.F. (2014, April). *Engineering Literacy: Educating Prospective K-6 Teachers for a More Knowledgeable and Prepared Generation of Engineering Students*. Paper presented at the 2014 ASEE Zone IV Conference, Long Beach, CA.

Bohlin, C.F., Nelson, F., & Tehrani, F. (2014, February). *An engineering literacy course for future elementary school teachers*. In Bissell, J. and LeDuc, D. (Chairs), *NGSS: Changes, impacts, and responses in K-12 and CSU*. Invited Panel in the webinar hosted by WestEd, San Francisco, CA. Available online at <http://www.wested.org/resources/next-generation-science-standards/>

Nelson, F. L. (2014, January). *Preservice science teachers' reflections while engaged in physics outreach demonstrations*. Paper presented at the International Conference of the Association for Science Teacher Education, San Antonio, TX.

Nelson, F. L., Immekus, J., & Ullrich, W. (2014, January). *Action research in a social justice online program*. Paper presented at the 12th Annual Hawaii International Conference on Education, Honolulu, HI.

Grants and Research

Dates	Activity/Agency	Amounts
2019	NSF	94639
2018	USAID	385297
2017	NSF	90000

Collaborative Works/Projects (with public schools, community agencies, etc.)

South Valley Make A Difference--TEACH Conference for High School Students Interested in Teaching--in collaboration with area teacher academy pathways. May 2019

Make A Difference--TEACH Conference for High School Students Interested in Teaching--in collaboration with area teacher academy pathways. September 2018

Make A Difference--TEACH Conference for High School Students Interested in Teaching--in collaboration with area teacher academy pathways. February 2017

Collegial Works/Projects (i.e., grants, articles, conference presentations, etc.)

Reading About Water--an interdisciplinary Common Read on the topic of water 2014-2018

Professional Development

California Council for Teacher Education State Conference, October 2018

Search Committee Chair Training, September 2018

High Impact Practices in the States Webinar, August 2018

From Pinholes to the Hubble Space Telescope: How Telescopes Work, Astronomy Society of the Pacific, SAM Academy, April 2018

Department Chairs Work-Life Balance Webinar, California State University, February 2018

New Department Chairs Workshop, California State University, October 2017

Teaching about the Great North American Eclipse Workshop, April 2016

National Science Foundation IUUSE Program and Pre-Service STEM Teacher Education Webinar, September 2016

Introduction to GradesFirst, September 2016

Division of Research & Graduate Studies How to Develop Budgets Workshop, September 2016

Next Generation Physical Science and Everyday Thinking Workshop, September 2016

Universal Design for Learning Workshop, September 2016

Graduate Online Pedagogy and Mentorship Workshop, August 2016

Applying the Quality Matters Rubric, August 2016

Reviewing Courses Using the QOLT Instrument, July 2016

CSU New Generation of Educators Initiative Convening, March 2016

Introduction to Teaching Online Using QOLT, November 2015

California Latino Leadership Education Summit, October 2015

NGSS State Rollout Symposium, October 2015

Coleman Foundation Faculty Entrepreneurship Fellows Summit, August 2015

CSU New Generation of Educators Initiative Convening, April 2015

Project Learning Tree Facilitator Training, October 2014

NGSS State Rollout Symposium, October 2014

CSTA-CASCD Introduction to the NGSS: A Paradigm Shift in Teaching and Learning Workshop, October 2014

Fresno State Technology, Innovation, & Pedagogy Conference, August 2014
California Institute for Biodiversity Summer Institute, 2014
Fresno State DISCOVERe Tablet Initiative Faculty Fellow, June 2014
National Science Foundation Geoscience Ideas Lab, March 2014
Linking NGSS and Common Core State Standards to Your Environmental Education Programs,
February 2014

Honors (Optional)

Dandoy Research Award, KSOEHD, Summer 2016
Coleman Foundation Faculty Entrepreneurship Fellow, California State University, Fresno, 2015
Provost's Award for Promising New Faculty, California State University, Fresno, 2015
Dandoy Research Award, KSOEHD, Spring 2015
Dandoy Research Award, KSOEHD, Fall 2014
Nominee, Provost's Award for Promising New Faculty, California State University, Fresno, 2014
Dandoy Research Award, KSOEHD, Spring 2014