

Jonah B. Firestone

Department of Teaching and Learning
Washington State University Tri-Cities
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Education

Ph.D. (Oct. 2011), **Curriculum and Instruction (Science Education), specialization in Geology**

Mary Lou Fulton Teachers College, Arizona State University, Tempe, AZ,

Dissertation: *The Impact of the Social Norms of Education on Beginning Science Teachers' Understanding of NOS during their First Three Years in the Classroom,*” Doctoral advisor: Dr. Julie Luft

B.A Psychology (2001), University of Arizona, Tucson, AZ. Research Advisor: Dr. Toni Schmader

B.S. Geology (1997), Arizona State University, Tempe, AZ. Advisor: Dr. Stanley Williams

Professional Experience

Washington State University Tri-Cities

Assistant Professor (2014-Present) Science Education, Department of Teaching & Learning, College of Education

Director of the Virtual and Augmented Technologies for Assessment and Learning (VITAL)

Associate Director of Neurocognition Science Laboratory (NCSL)

Courses Taught:

- **BIO 430/T&L 530** Methods of Teaching Science
- **EDPSYCH 401** Elementary Classroom Assessment
- **GEOL 101** Introduction to Geology
- **MATH 100** Basic Mathematics
- **SCI 101 & SCI 101L** Origins in the Natural World
- **T&L 301** Learning and Development
- **T&L 352** Teaching Elementary Mathematics
- **T&L 518** Integrating Technology into the Curriculum
- **T&L 522** Secondary Assessment Methods
- **T&L 574** Science for All
- **T&L 590** Internship
- **T&L 591** Research Internship in Mathematics/Science

Clinical Assistant Professor (2012-2014) Science Education, Department of Teaching & Learning, College of Education,

Courses Taught:

- **EDPSYCH 401** Elementary Classroom Assessment
- **EDPSYCH 502** Learning and Instruction
- **PHYSICS 102L** General Physics Lab
- **SCI 101 & SCI 101L** Origins in the Natural World
- **SCI 102 & SCI 102L** Dynamic Systems in the Natural World
- **T&L 330** Diversity in Education
- **T&L 374** Teaching Elementary Mathematics
- **T&L 402** Instructional Practicum I
- **T&L 403** Social Foundations of Elementary Education
- **T&L 445** Elementary Methods of Educational Technology

Arizona State University

Post-Doctoral Fellow (2012) School of Life Sciences

NOYCE funded projects working with Dr. Julie Luft that supported preservice, student teachers, and beginning science teachers during their induction period in the classroom.

Provided support for new secondary science teachers, managed data collection and analysis, and created IRB documents for multiple universities involved in the study

Supervisor (2008-2010) Mary Lou Fulton Teachers College

Supervised science and math student teachers in the TEAMS program at ASU

Coordinated meetings with mentor teachers and student teachers, reviewed student teachers' curriculum development and pedagogy, and provided feedback for improvement

Instructor (2006–2008) Mary Lou Fulton Teachers College

EED 420 Elementary Science Methods

Research Assistant (2006–2011) Mary Lou Fulton Teachers College

NSF funded project working with Dr. Julie Luft that examined the impact of science induction programs on secondary science teachers in the Midwest and Southwest. Participated in organization of subjects, data collection, and analysis of quantitative and qualitative data.

University of Arizona

Research Assistant (2000-2001) Department of Psychology

Examined the impact of Stereotype Threat on math performance in female college students, working on NSF funded project with Dr. Toni Schmader

Recruited subjects, created experimental conditions, conducted data collections, helped to analyze data, and debriefed subjects.

Research Assistant (1999-2000) Department of Psychology

Examined the long-term benefits of acupuncture on chronic depression working with Dr. John Adams
Recruited subjects and participated in data collections and analysis.

K-12 Teaching Experience

Science/Math Teacher (2005–2006) Technology and Leadership Academy, Air Force JROTC academy, Gilbert Unified School District, Gilbert, AZ

Taught algebra, chemistry, honors chemistry, and honors physics at a district based Air Force Military Academy
Science Department Head

Science/Health Teacher (2004-2005) Tempe Night School, Tempe Union High School District, Tempe, AZ

Taught night school biology and health classes
Certified students in CPR

Science/Health Teacher (2003–2005) Compadre High School, Tempe Union High School District, Tempe, AZ,

Taught biology, chemistry, earth science, chemistry, and health at a school for at risk students

Other Education-Related Experience

Premier Tutor/Trainer (1995–2015) The Princeton Review, Tempe, AZ, Tucson, AZ, Hong Kong, SAR,

Taught PSAT, SAT, SAT II: Physics, Math, and Literature, ACT, GRE, GMAT, and MCAT: Physics

Trained instructors for SAT, ACT, GMAT, & GRE in Arizona and Hong Kong

Curriculum Writer for ACT Program Development

Overview of Research and Scholarly Activity

My research focuses on two intertwined areas of investigation:

- 1) best practices in the support of preservice and beginning science teachers. Specifically, I focus on how education programs can prepare new teachers to be more successful in teaching, how schools can be better at supporting beginning teachers, and how teachers' beliefs about science teaching, their understanding of the nature of science (NOS), and their use of emerging technology, change and develop over time.
- 2) the use of emerging technologies in Virtual Reality (VR), Augmented Reality (AR), and neurocognition in decision making, attitude formation, and problem-solving in students and the use of these technologies in the development of Serious Educational Games (SEG) and simulations to foster learning.

Publications in Refereed Journals

Published

- Lamb, R., Annetta, L., Vallett, D.B., **Firestone, J. B.**, Schmitter- Edgecombe, M., Matthews, B., & Walker, H.; Devillier, N., & Hoston, D. (2017). Psychosocial factors impacting STEM career selection in Computer Science and Engineering. *Journal of Educational Research*, 1-13.
- Lamb, R. L., & **Firestone, J. B.** (2017). The Application of multiobjective evolutionary algorithms to an educational computational model of science information processing: A Computational experiment in science education. *International Journal of Science and Mathematics Education*, 15(3), 473-486.
- Lamb, R., **Firestone, J.B.**, & Ardasheva, Y. (2016). A computational modeling of rapid attitude formation during surveys about immigrants and immigration. *Computers in Human Behavior*, 63, 179-188.
- Ardasheva, Y., Newcomer, S. N., **Firestone, J. B.**, & Lamb, R. L. (2016). Mediation in the relationship among EL status, vocabulary, and science reading comprehension. *The Journal of Educational Research*, 1-10.
- Wong, S.S., **Firestone, J.B.**, Ronduen, L.G., & Bang, E.J. (2016). Middle school science and mathematics teachers' conception of the nature of science: A one-year study on the effects of explicit and reflective instruction. *International Journal of Research in Education and Science (IJRES)*, 2(2), 469-482.
- *Wong, S.S., **Firestone, J.B.**, Luft, J.A., & Weeks, C.B., (2013) Laboratory practices of beginning secondary science teachers': A Five-Year Study. *Science Educator*, 22(1), 1-9.
*Research Worth Reading Award, National Science Teachers Association (NSTA), 2014.
- *Luft, J. A., **Firestone, J.B.**, Wong, S.S., Ortega, I., Adams, K.A., & Bang, E.J. (2011) The Induction process of beginning secondary science teachers in their first two years: A Mixed-methods study. *Journal of Research in Science Teaching*. 48.10: 1199-1224.
*Journal of Research in Science Teaching (JRST) Paper of the Year, 2012.

Under Review

- Lamb, R., Hand, B., Yoon, S., & **Firestone, J.B.** (In Review). Bridging science to science education: Examination of cognitive processing of science writing tasks. *Nature* (2017).
- Lamb, R., Roth-McDuffie, A., Schmitter-Edgecombe, M., **Firestone, J.B.**, Cunninghami, R., McManusi, C., Antonenko, P., & Hamilli, A., (In Review). Examination of mathematics story problem solving using functional near infrared spectroscopy (fNIR) Neuroimaging Technologies. *Journal of Research in Mathematical Education* (2017).

- Ardasheva, Y., Newcomer, S., **Firestone, J.B.**, & Lamb, R. (In Review). Contributions of strategies, self-efficacy, and general and technical vocabulary to science reading comprehension of middle school ELs. *TESOL Quarterly* (2017).
- Lamb, R., Annetta, L., **Firestone, J.B.**, Akmal, T., & Antonenko, P. (In Review). Serious educational games, serious games, and simulations in the science classroom: A meta-analysis. *International Journal of Gaming and Computer Mediated Simulations*, (2017).
- Firestone, J.B.**, Luft, J.A., & Lamb, R., (In Review). NOS & Norms: The impact of teaching experiences on Beginning Science Teachers' Understanding of the Nature of Science. *International Journal of Science & Mathematics Education* (2017).
- Lamb, R., Annetta, L., **Firestone, J.B.**, & Adesope, O. (In Review). A meta-analysis with examination of moderators of student cognition, affect, and learning outcomes while using Serious Educational Games, Serious Games, and Simulations in the science classroom. *Journal of Science Education and Technology*, (2015).
- Lamb, R., **Firestone, J.B.**, Schmitter-Edgecombe, M., & Akmal, T., & Hand, B. (In Review). A computational model of student cognitive process while solving critical thinking problems in science. *Trends in Neuroscience and Education*. (2017).
- Lamb, R., Miller, D., Schmitter-Edgecombe, M., **Firestone, J.B.**, & McMahon, D. (In Review). Fetal Alcohol Spectrum Disorder and cognitive function in children and adolescents a meta-analysis and computational model. *Journal of Special Education* (2016).

Book Chapters

- Firestone, J.B.** (2016). Advance to Go: Reintroduction of board games into the classroom. In R. Lamb & D.D. McMahon (Eds.), *Educational and Learning Games: New Research*. New York, NY: NOVA Publishing. (pp.155-170).
- Wong, S.S., **Firestone, J.B.**, Lamb, R., & Luft, J.A. (2015). Perceived support and retention of first year secondary science teachers. In J. A. Luft & S. Dubois (eds.), *Newly Hired Teachers of Science: A Better Beginning*. (pp. 31-42) Springer.
- Luft, J. A., DuBois, S. L., Banilower, E. R., Campbell, B. J., Criswell, B. A., **Firestone, J. B.**, Greisen, K., Henschel, M. M., Hill, K. M., McDonnough, J. T., Merk, H., Nixon, R. S., Richmond, G., Rushton, G. T., Stoupe, D., Webb, A. W., Windschitl, M., & Wong, S. S. (2015). Connecting research to practice for better beginnings: Drawing upon what we know to enhance the teaching and learning of newly hired science teachers. In J. A. Luft and S. L. DuBois (eds.), *Newly Hired Teachers of Science: A Better Beginning*. (pp. 197-203) Springer.
- Bang, E., Wong, S. S., **Firestone, J.B.**, & Luft, J.A. (2014). eMediated mentoring: Factors that influence online mentoring experiences for secondary science teachers. In F. Kochan, A. Kent, & A. Green (Eds.), *Uncovering the hidden cultural dynamics in mentoring programs and relationships: Enhancing practice and research* (pp. 109-130). Charlotte, NC: Information Age Publishing.
- Firestone, J.B.**, Wong, S.S., & Luft, J.A. (2012). The Nature of Science or the Nature of Teachers: Beginning Science Teachers' Understanding of NOS. In M. Khine (ed.), *Advances in the Nature of Science Research: Concepts and Methodologies*. (189-206) Springer

Luft, J. A., Neakrase, J., Adams, K.A., **Firestone, J.B.**, & Bang, E.J. (2010). Bringing content into induction programs: Examples from science. In J. Wang, S. J. Odell, & R. Clift (eds.), *Past, present, and future research on induction: An anthology for researchers, policy makers, and practitioners* (pp. 205-220). Lanham, Maryland: Rowman & Littlefield.

Published Curriculum Manuals

Cracking the ACT 2012 (2012), New York, Random House.
Preparing for the ACT Flashcards, (2011), New York, Random House.
Cracking the ACT 2009 (2009), New York, Random House.
Manual for the ACT (2008), New York, The Princeton Review.

Presentations

International/National

- Ardasheva, Y., Newcomer, S. N., **Firestone, J. B.**, & Lamb, R. (2017) Does Vocabulary Knowledge Mediate the EL Status Effect in Science Reading Comprehension? Roundtable presentation at the annual meeting of American Educational Research Association (AERA), San Antonio, TX.
- Roo, A.K., Ardasheva, Y., Wang, Z., Adesope, O., Newcomer, S. N., **Firestone, J. B.**, & Lamb, R. (2017). Contributors to science reading comprehension: Study 1 and Study 2. Poster presented at the annual meeting of the Teachers of English to Speakers of Other Languages (TESOL) Convention, Seattle, WA.
- Lamb, R., Annetta, L., **Firestone, J.B.**, Antonenko, P., Schmitter-Edgecombe, M., Liu, X., & Liu, R. (2017). Cognitive Demand and Dynamics: Comparison of Virtual and Real Laboratories in Science Education via fNIRs. Paper presented at the International Conference of National Association for Research in Science Teaching (NARST), San Antonio, TX.
- Lamb, R., Annetta, L., **Firestone, J.B.**, Liu, X., & Liu, R. (2017). Examination of cognitive demand and cognitive dynamics: A comparison of pedagogical approaches in science teaching and learning using Functional Near Infrared Spectroscopy. Paper presented at the International Conference of Association of Science Teacher Education (ASTE), Des Moines, IA.
- Lamb, R., Annetta, L., **Firestone, J.B.**, Vallett, D., & Cunningham, R. (2016). Psychosocial factors affecting STEM career selection in computer science and engineering. Paper presented at the International Conference of National Association for Research in Science Teaching (NARST). Baltimore, MD.
- Ardasheva, Y., **Firestone, J.B.**, Lamb, R., & Newcomer, S. (2016). Contributions of strategies, self-efficacy, and general and technical vocabulary to science reading comprehension among ELs. Roundtable presentation accepted for the annual meeting of the American Educational Research Association (AERA), Washington, DC.
- Lamb, R., Annetta, L., **Firestone, J.B.**, Vallett, D., Shapiro, M., & Matthews, B. (2016). Examination of moderators of student cognition, affect, and learning outcomes using Serious Educational games, Serious Games and Simulations in the science classroom, Paper Presented at the International Conference of Association of Science Teacher Education (ASTE), Reno, NV.
- Firestone, J.B.**, Morrison, J.A., & Grant, L. (2016). Transplanted Stems: Teachers' changing beliefs about STEM at a new elementary STEM school. Paper Presented at the International Conference of Association of Science Teacher Education (ASTE), Reno, NV.

- Morrison, J.A., **Firestone, J.B.**, & Grant, L. (2016). The first year of an innovative STEM elementary school. Paper Presented at the International Conference of Association of Science Teacher Education (ASTE), Reno, NV.
- Morrison, J.A., **Firestone, J.B.**, Nelson, T., Lesseig, K., & Slavit, D. (2015) STEM schools and curricula: Research at the elementary, middle, and high school levels. Association of Science Teacher Educators (ASTE), Portland, OR.
- Bang, E.J., Wong, S.S., **Firestone, J.B.**, & Luft, J.A. (2014). "Online mentoring program and beginning secondary science teachers." National Association of Research in Science Teaching, Pittsburgh, PA.
- *Wong, S.S., **Firestone, J.B.**, Luft, J.A., Weeks, C.B., & Bang, E.J. (2013). Beginning Secondary Science Teachers' Laboratory Practices: A Five-Year Study. National Association of Research in Science Teaching, Rio Grande, PR.
***Nominated for the NARST 2013 Outstanding Paper Award (OPA)**
- Luft, J.A., **Firestone, J.B.**, Wong, S.S., Ortega, I., Weeks, C., & Adams K.A. (2012). The first five years: Beginning secondary science teachers. American Educational Research Association, Vancouver, British Columbia.
- Wong, S.S., Ortega, I., **Firestone, J.B.**, Adams, K.A., & Luft, J.A. (2012). Committed to teaching: Beliefs of persisting beginning secondary science teachers. National Association of Research in Science Teaching, Indianapolis, IN.
- Luft, J.A., **Firestone, J.B.**, Weeks, C., Wong, S.S., Adams, K.A., & Ortega, I. (2012.) Beginning secondary science teachers' beliefs, practices, and experiences: A five-year missed methods study. National Association of Research in Science Teaching, Indianapolis, IN.
- Firestone, J.B.**, Weeks, C.B., Wong, S.S., Adams, K.A., Ortega, I., & Luft, J.A. (April 2011). New directions for NOS: A pilot study. Presented at annual National Association for Research in Science Teaching conference, Orlando, FL.
- Wong, S.S., Ortega, I., Luft, J.A., **Firestone, J.B.**, & Adams, K.A. (April 2011). Impact of school experiences on beliefs about the nature of science: Two case studies on persisting secondary science teachers. Presented at annual National Association for Research in Science Teaching conference, Orlando, FL.
- Ortega, I., Wong, S.S., Newcomer, S., **Firestone, J.B.**, Adams, K.A., & Luft, J.A. (April 2011). Navigating inquiry and academic language in classrooms with ELLs: A longitudinal study of two beginning secondary science teachers. Presented at annual National Association for Research in Science Teaching conference, Orlando, FL.
- Firestone, J.B.**, Adams, K.A., Wong, S.S., Ortega, I., Luft, J.A., & Neakrase, J. (January, 2011). Science teachers' knowledge of science: Using concept maps to quickly determine content knowledge in beginning teachers. Presented at annual Association of Science Teacher Education International conference, Minneapolis, MN.
- Wong, S.S., Ortega, I., Luft, J.A., **Firestone, J.B.**, & Adams, K.A. (January 2011) Beliefs and practices of two persisting secondary science teachers in different induction programs: A longitudinal study. Presented at annual Association of Science Teacher Education International conference, Minneapolis, MN.
- Luft, J.A., **Firestone, J.B.**, Adams, K.A., Ortega, I., Wong, S.S. Bang, E.J., (2011). Newly qualified science teachers: Beliefs, knowledge, and practices during the first five years. European Science Education Research Association, Lyon, France.
- Ortega, I., Wong, S.S., Alhashem, F., **Firestone, J.B.**, Adams, K.A., Luft, J.A. (January, 2011). The development of a language and inquiry rubric to assess preservice teachers' science lessons: Results of the second pilot. Presented at annual Association of Science Teacher Education International conference, Minneapolis, MN.

- Firestone, J.B.**, Luft, J.A., (March, 2010). Beliefs about teaching and the nature of science of certified and non-certified secondary science teachers. Presented at annual National Association for Research in Science Teaching conference, Philadelphia, PA.
- Luft, J.A., Adams, K.A., **Firestone, J.B.**, Ortega, I., Wong, S. & Fay, D. (March, 2010). Beginning secondary science teachers in their first three years of teaching: Changes in beliefs and practices. Presented at National Association for Research in Science Teaching annual conference, Philadelphia, PA.
- Luft, J.A., Adams, K.A., Fay, D., **Firestone, J.B.**, Ortega, I., & Wong-Kavas, S. (January, 2010). The first three years: The beliefs, knowledge and practices of beginning science teachers. Presented at Association of Science Teacher Education International annual conference, Sacramento, CA.
- Ortega, I., Wong, S.S., **Firestone, J.B.**, & Luft, J.A., (April, 2009). A beginning secondary science teacher who works with English language learners: Looking at instruction and pedagogical content knowledge. Presented at annual National Association of Research in Science Teaching, Garden Grove, CA.
- Adams, K.A., **Firestone, J.B.**, & Luft, J.A. Neakrase, J.J., Bang, E.J., Ortega, I., Wong, S. (April, 2009). The first three years: How context and pedagogical content knowledge affects the use of instructional materials and resources by beginning secondary science teachers. Presented at annual National Association of Research in Science Teaching, Garden Grove, CA.
- Luft, J.A., Adams, K., **Firestone, J.B.**, Ortega, I., & Wong-Kavas, S. (2009). Beginning secondary science teachers in their first two years. Presented at European Science Education Research Association conference, Istanbul, Turkey.
- Firestone, J.B.**, Adams K.A, Luft, J.A., Neakrase, J., Bang, E.J., Ortega, I., & Wong, S. (April, 2009). Converging paths: Change in the beliefs about teaching and the nature of science amongst certified and alternatively certified secondary science teachers. Presented at annual National Association of Research in Science Teaching, Garden Grove, CA.
- Wong, S., Bang, E.J., Luft, J.A., Adams, K.A., **Firestone, J.B.**, Neakrase, J., & Ortega, I. (April, 2009). Beliefs and practices of beginning secondary science teachers: The first two years in the classroom. Presented at annual National Association of Research in Science Teaching, Garden Grove, CA.
- Luft, J.A., Adams, K.A., **Firestone, J.B.**, Ortega, I., Wong, S., Neakrase, J., & Bang, E.J. (April, 2009). Beginning science teachers in different induction programs: The second year. Presented at annual American Educational Research Association, San Diego, CA.
- Firestone, J.B.**, Adams, K.A., & Luft, J.A. (January, 2009). Beginning secondary science teachers' conceptualization of hands-on. Presented at annual Association for Science Teacher Education, Hartford, CT.
- Adams, K.A., Bang, E., Guskey, S., Hick, S., **Firestone, J.B.**, Kern, A., Kirchhoff, A., Kowalski, S., Lewis, B., Morgan, K., Neakrase, J., Stang, R., & Uysal, S. (March, 2008). Building a Continuum of Practice: First year secondary science teachers. Presented at annual National Association for Research in Science Teaching conference, Baltimore MD.
- Firestone, J.B.** & Adams, K.A. (February 2011). Science fiction and science fact: Teaching the nature of science through fiction and non-fiction. Presented at 41st Annual Language and Literacy Conference: Reclaiming a Space for Books in the Classroom, Tempe AZ.

Regional

- Ardashevea, Y., Newcomer, S.N., **Firestone, J.B.**, & Lamb, R. (2016) Contributors to science reading comprehension: Study 2. Poster presented at Washington State University Academic Showcase. Pullman, WA.

- Lamb, R., **Firestone, J.B.**, & McManus, C. (2016). Principles and applications of Functional Near Infrared Spectroscopy. Paper presented at the National Science Foundation Laboratory Collaborative Network. Gainesville, FL & Boston, MA.
- Lamb, R., **Firestone, J.B.**, & McManus, C. (2016). Examination of the Impacts of Dimensionality on the Cognitive Dynamics Associated Educational Video Game Play, Poster Presented at Washington State University Academic Showcase. Pullman, WA.
- Newcomer, S.N., **Firestone, J.B.**, Chiesa, K., & Hays, S., (2016). "I love these kids": Helping preservice teachers develop a humanizing pedagogical perspective. Paper presented at the Globalization, Diversity, and Education Conference Annual Meeting, Spokane WA.
- Morrison, J.A., **Firestone, J.B.**, Nelson, T., Lesseig, K., & Slavitt, D. (2015) STEM schools and curricula: Research at the elementary, middle, and high school levels. Poster Presented at Washington State University Academic Showcase. Pullman, WA.
- Lamb, R., Annetta, L., Vallett, D., **Firestone, J.B.**, Petrie, K., Shapiro, M., Matthews, B., Lamb, R. E., Cunningham, K.R., Hiliker, H. (2015). Factors Influencing STEM Major and Career Selection, Poster Presented at Washington State University Academic Showcase. Pullman, WA.

Grants

External

- Lamb, R., **Firestone, J.B.**, & Hand, B. (2016) Cognitive Aspects of Mathematics Instruction (CAMI). EARly-concept Grants for Exploratory Research (EAGER), National Science Foundation (NSF). \$298,173 (under review).
- Lamb, R., DeVoto, R., & **Firestone, J.B.** (2016). Self-Monitoring Autonomously Responsive Technologies (Project: SMART). Small Business Innovation Research National Science Foundation (NSF). \$49,970 (under review).
- McManus, C., Lamb, R., **Firestone, J.B.**, & Westhoff, G. (2016) Steelcase Active Learning Furniture Grant. Steelcase Education. \$62,000.00 (not funded).
- Firestone, J.B.** & Lamb, R., (2016) Project: SMART, Spencer Foundation: Spencer Small Grant. \$49,055 (not funded).
- Firestone, J.B.** & Morrison, J., (2016) REACH Museum Assessment. Strengthening the Public's and/or K-12 Students' Environmental Literacy for Community Resilience, National Oceanic and Atmospheric Administration (NOAA). \$75,000 (not funded).
- Lamb, R. & **Firestone, J.B.**, (2015) From the Laboratory to the Classroom: Helping to create resource-rich, student-centered, autonomously responsive smart-classroom environments. Stubblefield Foundation. \$5,000
- Lamb, R., Annetta, L., & **Firestone, J.B.** (2015) Situated Testing in Authentic Gaming Environments in Science: (STAGES 2). DRK-12 National Science Foundation (NSF). \$1,773,932 (not funded).
- Lamb, R., Annetta, L., & **Firestone, J.B.**, (2015) Situated Testing in Authentic Gaming Environments in Science: (STAGES 2). I-TEST National Science Foundation (NSF). \$1,199,057 (not funded).
- Firestone, J.B.**, Lamb, R., & Adesope, O., (2015) Computer Science in K-12. APEX Foundation. \$460,000 (not funded).

Internal

- Firestone, J.B.**, (2016) Virtual and Augmented Technologies for Assessment and Learning (VITAL) lab. Chancellor Research Grant. Washington State University Tri-Cities. \$50,000
- Ardasheva, Y., **Firestone, J.B.**, & Lamb, R., (2014) Middle School Science Vocabulary Support Program. William T. Grant Foundation. \$30,000 (not funded).
- Ardasheva, Y., **Firestone, J.B.**, & Lamb, R. (2015) Contextual Factors for English Language Learners. Faculty Research Funding Award, Washington State University. \$8,799.
- Firestone, J.B.** & Morrison, J., (2015) STEM Elementary School Teachers: Exploring their Views, Practices, and Growth. Faculty Research Funding Award, Washington State University \$9,000 (not funded).
- Firestone, J.B.** & Morrison, J., (2014) STEM Elementary School Teachers: Exploring their Views, Practices, and Growth. Faculty Research Funding Award, Washington State University. \$9,000.
- Newcomer, S. N., **Firestone, J.B.**, & Christenson, P., (2014) Podcasts, Wiki's, and Blogs, Oh, My! Fostering Digital Literacy Through Student Partnerships. New Faculty Seed Grant, Washington State University. \$30,000 (not funded).
- Ardasheva, Y. **Firestone, J.B.**, & Lamb, R., (2014) Middle School Science Vocabulary Support Program. Faculty Research Funding Award, Washington State University. \$9,000

Honors and Awards

National

- National Science Teachers Association (2014)
*Research Worth Reading Award
- National Association of Research in Science Teaching (2012)
*Journal of Research in Science Teaching (JRST) Award
- National Association of Research in Science Teaching (2009)
Selected Attendee, Summer Research Institute, Columbia, MO

University

- Graduate & Professional Student Association Arizona State University (2011)
Outstanding Service Award
- Graduate & Professional Student Association Arizona State University (2010)
Travel Grant
- Earl A. and Lenore H. Tripke Arizona State University (2009)
Travel Award
- University Graduate Fellowship Arizona State University (2006-2011)

Service

National

- Reviewer for Grant Funding Agencies, Research Journals & Conference Presentations:
Journal Neuroscience, Psychology, and Economics (2015)
Journal of Engineering Education (2015)
Journal of Educational Research: (2015)
National Science Foundation: (2012 - 2014)
Journal of Research in Science Teaching, (2011-present)
Science Educator, (2011-present)
Association for Science Teacher Education, (2008-present)

National Association of Research in Science Teaching (2008-2012)
Director: Northwest Association of Science Teacher (NWASTE): (2016-Present)
Elections Officer: Northwest Association of Science Teacher Educators (NWASTE): (2015-2016)
Co-chair: National Association or Research in Science Teaching (2017) Virtual Conference

Regional

Washington Science, Technology, Engineering, and Mathematics Initiative (WA-STEM) WSU Science Faculty Representative (2014-Present).
Faculty Representative, Read to Lead fundraiser for the Children's Reading Foundation of the Mid-Columbia, Convention Center, WA (2014, 2015)
Faculty Representative, Jingle & Jazz Dessert Dash fundraiser for Modern Living Services, Richland Community Center, Richland WA (2014)

College of Education

Associate Director Neurocognitive Science Laboratory (2015-present)
Middle Level Science Endorsement Committee, Department of Teaching and Learning (2014-present)
Member, Math and Science PhD Committee (2012-present)
Curriculum and Instruction Committee (2015-present)
Search Committee, Clinical Mathematics Professor (2015)
Search Committee Mathematics Professor (2017)
Grants and Research Advisory Committee (2016-present)
STEM-Incubator (2016-present)

Campus

Executive Board Member for the WSUTC Resident Faculty Organization (RFO) (2015-present)
Student Union Building Design Committee (2015-present)
Undergraduate Scholarship Reviewer (2012-present)
Search Committee, E-recruiter/Admissions (2014)
Campus Retention Committee (2014-present)
Student Admissions Committee of the Dept. of Teaching & Learning (2012-present)
College of Education Crimson Challenge Scholarship Competition, Judge (2015-present)

Professional Memberships

American Association for the Advancement of Science (AAAS)
National Science Teacher Association (NSTA)
National Association of Research in Science Teaching (NARST)
Association of Science Teacher Education (ASTE)
American Educational Research Association (AERA)
Northwest Association of Science Teacher Educators (NWASTE)
Association for Psychological Science (APS)

Advising

MIT Chair:

Mark Cheney (Science) 2015- pending
John Hubbe (Science) 2015 - pending

MIT Committee Member:

Sarah Woods (Science) 2015- pending
Holly Milewski (Science) 2015 - pending

Ph.D. Chair:

Christine McManus (Science) 2014 - pending

Ph.D. Committee Member:

Angela Witters (Mathematics) 2012 - pending
Laura Grant (Science) 2012 – pending
Sarah Woods (Science) 2012 - pending

Ph.D. Advisor:

Jessica Wheeler (Science) 2015 - pending