

Curriculum Vitae

**CHRISTINE L. BAE**  
Virginia Commonwealth University  
School of Education  
Foundations of Education

**PERSONAL INFORMATION**

**Name:** Christine L. Bae  
**Office address:** 1015 West Main Street, 4074 Oliver Hall  
Richmond, VA 23220  
  
Tel: (804) 828-1332  
email: clbae@vcu.edu

**EDUCATION**

**Ph.D.** Educational Psychology, 2012, University of Florida  
*Minor in Quantitative Research, Evaluation, and Methodology*  
**M.A.E.** Educational Psychology, 2010, University of Florida  
**B.S.** Psychology, 2007, University of Florida

**PROFESSIONAL APPOINTMENTS**

**Assistant Professor**, Educational Psychology, Department of Foundations of Education, Virginia Commonwealth University, 2016 – present  
**Faculty Affiliate**, Department of Psychology, Virginia Commonwealth University, 2016 – present  
**Co-Director**, VCU Cognition and Learning Lab, Virginia Commonwealth University, 2017 – present  
**Postdoctoral Researcher**, Institute for STEM Education, California State University East Bay, 2013 – 2016  
**Laboratory Manager**, Department of Educational Psychology, University of Florida, 2011 – 2012

**SCHOLARSHIP**

**GRANT FUNDING**

*Note:* Name changed to Bae from Lee in 2016

*Funded*

NSF Early CAREER, \$1,031,374 2019  
**Bae, C.L. (PI)**  
Title: *Building on diverse students' funds of knowledge to promote scientific*

*discourse and strengthen connections to science learning in urban classrooms*

- NSF Discovery Research K12 (DR-K12), \$3,406,193 2018  
**Bae, C. L.** (Co-PI), Hayes, K., (PI), Seitz, J. (Co-PI), & O'Connor, D. (Co-PI)  
Project: *Science Communities of Practice Partnership (SCOPP): Generating Reform Ownership for Transforming Science Teaching.*
- U.S. DOE Supporting Effective Educator Preparation (SEED), \$4,969,512 2018  
**Bae, C. L.** (Co-PI), Dozier, T., (PI), Edmondson, E. (Co-PI), & Senechal, J. (Co-PI), Lisa Abrams (Co-PI)  
Project: *VCU SEED Project*
- VCU Presidential Research Quest (PeRQ) Fund, \$50,000 2018  
**Bae, C. L.** (PI)
- American Psychological Association, Division 15 Early Career Research Grant, \$6,000 2017  
**Bae, C. L.** (PI)
- VCU School of Education, Get Centered Research Grant, \$7,000 2017  
**Bae, C. L.** (PI), Dozier, T. (Co-PI)  
Title: *Examining an Urban Teacher Residency Model: Elementary Teachers' Self-Efficacy, Instruction, and Student Learning Across Affective and Cognitive Domains*
- VCU Office of the VP for Research and Innovation Internal Research Grant, \$10,000 2017  
**Bae, C. L.** (PI)
- California Mathematics and Science Partnership (CaMSP) Professional Development Program Cohort 12, \$3mil 2015 – 2017  
**Lee, C. S.** (Co-PI), Seitz, J. (PI), O'Connor, D. (Co-PI), Hayes, K. N. (Co-PI)  
Title: *Science Partnership for Instructional Innovation (SPFII)*
- NSF Discovery Research K12 (DR-K12), \$1,999,747 2014 – 2017  
**Lee, C. S.** (Co-PI), DiStDiStefano, R. (PI), DeLuc, D. (Co-PI) & Korb, M. (Co-PI)  
Title: *Next Generation Project Alliance for Science Education Toolkit (ASET)*
- California Subject Matter Project (CSMP), 2016-17, \$15,000 2016 – 2017  
Seitz, J. (PI), O'Connor, D. (Co-PI), **Lee, C. S.** (Researcher)
- California Subject Matter Project (CSMP), 2015-16, \$15,000 2015 – 2016  
Seitz, J. (PI), O'Connor, D. (Co-PI), **Lee, C. S.** (Researcher)  
Project: *Integrated Middle School Science (IMSS) Partnership*

Western Kentucky University, Research and Creative Activities Program, 2013 – 2015  
(RCAP), \$10,000

Redifer, J. (PI), **Lee, C. S.** (Co-PI)

Title: *Altering Students' Theories of Creativity to Improve Creative Problem-Solving*

*Unfunded*

NSF IGE, \$500,000 2019

McGarvey, D. (PI), Faris, S. (Co-PI), & **Bae, C. L.** (Co-PI)

Title: *Visual Literacy @ VCU*

NSF EHR Core Research, \$99,500 2018

Chow., J.C. (PI), **Bae, C.L.** (Co-PI), Peng, P. (Co-PI)

Title: *Measures of Learning in Elementary and Middle School Mathematics an Science: A Research Synthesis*

James S. McDonnell Foundation, \$1.2 million 2017

**Bae, C.L.** (PI), Edmondson, E., Hayes, K., Chow, J. C., & O'Connor, D.

Title: *Understanding Teachers-as-Learners: A Mixed Methods Study of the Relationship between Teacher Profiles, Professional Learning, and Enactment of Science Discourse in the Classroom*

NSF Improving Undergraduate STEM Education (IUSE), \$2 million 2016 – 2018

DiStefano, R. (PI), DeLuc, D. (Co-PI), Lei, H. (Co-PI), **Lee, C. S.** (Co-PI)

Title: *Next Generation Hands-On Science Teaching (HOST)*

IES Science Partnership Grant, \$400,000 2016 – 2017

Hayes, K. N. (PI), **Lee, C. S.** (Co-PI), O'Connor, D. (Co-PI), Seitz, J. (Co-PI)

Title: *Effective Strategies to Generate Ownership for Transforming Science Teaching and Learning (TSTL) Project: A Partnership Approach*

## **P U B L I C A T I O N S**

\*Indicates student author

### **Refereed Publications:**

**Bae, C. L.,** & Lai, M. (in press). Opportunities to Participate (OtP) in science learning and student engagement: A mixed methods study. *Journal of Educational Psychology*.

**Bae, C. L.,** & DeBusk-Lane. (2019). Engagement profiles in middle school: Implications for motivation and achievement in science. *Learning and Individual Differences, 74*.

**Bae, C. L.,** Therriault, D. J., & Redifer, J. (2019). Investigating the testing effect: Retrieval as a characteristic of effective study strategies. *Learning and Instruction, 60*, 206-214.

- Redifer, J. L., **Bae, C. L.**, & DeBusk-Lane. (2019). Implicit Theories of Creativity, Working Memory, and Cognitive Load: Impacts on Creative Thinking Performance. *Sage Open*, 9(1), 2158244019835919.
- Bae, C. L.**, DeBusk-Lane, M.\*, Hayes, K. N., & Zhang, F.\* (2018). Opportunities to Participate (OtP) in Science: Examining Differences Longitudinally and Across Socioeconomically Diverse Schools. *Research in Science Education*, 1-22. <https://doi.org/10.1007/s11165-018-9797-5>.
- Sinapuelas, M., Lardy, C., Korb, M., **Bae, C. L.**, DiStefano, R. (2018). Developing a three-dimensional view of science teaching: A tool to support preservice teacher discourse. *Journal of Science Teacher Education*, 30, 101-121.
- Bae, C. L.**, & DeBusk-Lane, M. L.\*. (2018). Stability of motivation belief profiles middle school science: Links to classroom goal structures and achievement. *Learning and Individual Differences*, 67, 91-104.
- Inouye, C., **Bae, C. L.**, & Hayes, K. (2017). Whiteboarding improves learning in a college biology course. *Advances in Physiology Education*, 41(3), 478-484.
- Koro-Ljungberg, M. E., Douglas, E. P., McNeill, N. J., Therriault, D., **Bae, C. L.**, & Malcom, Z. (2017). Academic problem-solving and students' identities as engineers. *Qualitative Report*, 22(2), 456-479.
- Bae, C. L.**, Hayes, K. N., Seitz, J., O'Connor, D., & DiStefano, R. (2016). A coding tool for examining the substance of teacher professional learning and change with example cases from middle school science lesson study. *Teaching and Teacher Education*, 60, 164-178.
- Bae, C. L.**, Hayes, K. N., O'Connor, D., Seitz, J. C., & DiStefano, R. (2016). The diverse forms of teacher leadership: A typology and survey tool for middle school science. *Journal of School Leadership*, 26, 907-937.
- Lee, C. S.**, Hayes, K. N., Seitz, J. C., DiStefano, R., & O'Connor, D. (2016). Examining motivational structures that differentially predict engagement and achievement in middle school science. *International Journal of Science Education*, 38(2), 192-215.
- Hayes, K. N., **Lee, C. S.**, DiStefano, R., O'Connor, D., & Seitz, J. (2016). Measuring science instructional practices: A survey tool for the age of NGSS. *Journal of Science Teacher Education*, 27(2), 137-164.
- Redifer, J. L., Therriault, D. J., **Lee, C. S.**, and Schroeder, A. (2016). Strategy instruction and the working memory-cognitive load interaction: Contributions to mathematical problem-solving. *Applied Cognitive Psychology*, 30, 420-429.

Therriault, D. J., Redifer, J. L., **Lee, C. S.**, & Wang, Y. (2015). On Cognition, need, and action: How working memory and need for cognition influence leisure activities. *Applied Cognitive Psychology*, 29(1), 81-90.

**Lee, C. S.**, Huggins, A. C., & Therriault, D. J. (2014). A Measure of Creativity or Intelligence? Examining Internal and External Structure Validity Evidence of the Remote Associates Test. *Psychology of Aesthetics, Creativity, and the Arts* 8(4), 446-460.

**Lee, C. S.**, McNeill, N., Douglas, E. P., Koro-Ljungberg, M. E., & Therriault, D. J. (2013). Indispensable resource? A phenomenological study of textbook use in engineering. *Journal of Engineering Education*. 102(2), 269-288.

**Lee, C. S.**, & Therriault, D. J. (2013). The cognitive underpinnings of creative thought: A latent variable analysis exploring the roles of intelligence and working memory in three creative thinking processes. *Intelligence*, 41, 306-320.

Liu, G., Zhang, S., Zhang, J., **Lee, C. S.**, Want, Y., & Brownell, M. (2013). Autonomous Motivation and Chinese Adolescents' Creative Thinking: The Moderating Role of Parental Involvement. *Creativity Research Journal*, 25(4), 446-456.

**Lee, C. S.**, Therriault, D. J., & Linderholm, (2012). On the cognitive benefits of cultural experiences: Exploring the relationship between studying abroad and creative thinking. *Applied Cognitive Psychology*, 26, 768-778.

#### **Conference Proceedings:**

Douglas, E. P., Agdas, S., **Lee, C. S.**, Koro-Ljungberg, M. E., & Therriault, D. J., (2015). Ambiguity during engineering problem-solving. *Frontiers in Education Conference*, El Pasos, Texax.

Douglas, E. P., Koro-Ljungberg, M., Therriault, D. J., **Lee, C. S.**, & McNeill, N. (2012). Discourses and social worlds in engineering education: Preparing problem-solvers for engineering practice. *Proceedings of the American Society for Engineering Education*.

Therriault, D. J., **Lee, C. S.**, Douglas, E. P., & Koro-Ljungberg, M. E. (2011). Open-book problem-solving in engineering: An exploratory study. *American Society for Engineering Education Annual Conference*, Vancouver, British Columbia, June 2011.

Douglas, E. P., Koro-Ljungberg, M. E., Therriault, D. J., **Lee, C. S.**, Malcolm, Z., & McNeill, N. (2011). Work in progress: The role of working memory and epistemic beliefs on open-ended problem solving. *Frontiers in Education Conference*, Rapid City, South Dakota, 2011.

Douglas, E. P., Koro-Ljungberg, M., Malcolm, Z. T., McNeill, N., Therriault, D. J., & **Lee, C. S.** (2011). Moving beyond formulas and fixations: Exploring approaches to solving open-ended engineering problems. *Proceedings of the American Society for Engineering Education Annual Conference*, Vancouver, British Columbia, June 2011.

**Manuscripts under review:**

**Bae, C.L.**, Hayes, K. N., & DeBusk-Lane, M. (under review). Profiles of middle school science teachers: A latent profile analysis. *Journal of Research in Science Teaching*

Hayes, K. N., **Bae, C. L.**, DiStefano, R., O'Connor, D., & Seitz, J. (revise and resubmit). Organizational capacity for educational reform: Defining a typology of capitals. *Educational Administration Quarterly*.

**Manuscripts in progress:**

**Bae, C. L.**, Lai, M., & Liu, Y. (in progress). Achievement in urban elementary schools: An ecological study of engagement and student, classroom, and school predictors.

**Bae, C. L.**, DeBusk-Lane, M., & Lester, A. (in progress, analyses complete). Engagement profiles of elementary students.

**Bae, C. L.**, & Hayes, K. (in progress). Supporting opportunities for science discourse in urban middle classrooms: Links to student motivation and engagement.

**Bae, C. L.**, Broda, M., Mills, D. (in progress). A longitudinal examination of student engagement in urban schools: Accounting for student and classroom factors.

**Bae, C. L.**, Mills, D., Matewos, A., & Zhang, F. (in progress). A systematic review of frameworks and tools used to examine scientific discourse and learning.

Hayes, K., **Bae, C. L.**, Seitz, J., & O'Connor, D. (in progress). San Lorenzo Case Study.

Fa, Z., & **Bae, C. L.** (in progress). A systematic review of TIMSS.

**BOOK CHAPTER**

Day, S., & **Bae, C. L.** (in press). *Developing Authentic Performance Assessments in a Classroom Mini-Economy: Reflections on the Process of Design*.

**CONFERENCE PRESENTATIONS****Peer Reviewed Papers:**

**Bae, C. L.**, & DeBusk-Lane, M. (2018). Profiles of Motivation in Middle School Science: Links to Classroom Structures and Achievement. *American Psychological Association, Division 15*, San Francisco, CA, August 2018.

**Bae, C. L.**, Hayes, K. N., & Dabney, K. (2018). The Role of Student Characteristics and Classroom Learning Opportunities in Science Achievement: A Multilevel Approach. Paper for the *American Educational Research Association (AERA)*, New York, April 2018.

- Bae, C. L.,** DeBusk-Lane, M., & Hayes, K. N. (2018). Student Engagement and Opportunities to Participate in Science Practices Across Socioeconomically Diverse Schools. Paper for the *American Educational Research Association* (AERA), New York, April 2018.
- Dabney, K. P., Sonnert, G., **Bae, C. L.,** & Sadler, P. M. (2018). STEM Experiences and Computer Science Career Interest. Paper for the *American Educational Research Association* (AERA), New York, April 2018.
- Hayes, K. N., Preminger, L., Tran, V., & **Bae, C. L.** (2018). The Relationship Between Professional Development and Teacher Retention: A Mixed Methods Study. Paper for the *American Educational Research Association* (AERA), New York, April 2018.
- DeBusk-Lane, M., Gnilka, P., **Bae, C. L.,** Suleyman, A., & Fye, H. (2018). Counselor Burnout Inventory: Factor Structure and Measurement Invariance across U.S. and Turkish Professional School Counselors. Paper for the *American Educational Research Association* (AERA), New York, April 2018.
- Bae, C. L.,** Serang, S., & Dozier, T. (2018). Examining the Effects of an Urban Teacher Residency Program on Students' Math and Reading Achievement: Evidence from Classroom-Based and Benchmark Measures. Paper presentation at the *Consortium for Research on Educational Assessment and Teaching Effectiveness* (CREATE), Williamsburg, VA, October 2018.
- Bae, C. L.,** & DeBusk-Lane, M. (2017). Engaging Students in Science: Measurement Invariance of Science Practices across Middle School Grades and Socioeconomic Subgroups. Paper presentation at *The Society for Research on Educational Effectiveness* (SREE), Washington DC, March 2017.
- Bae, C. L.,** Inouye, C., & Hayes, K. N. (2017). Active retrieval and peer discourse strategy: Whiteboarding increases deeper understanding in college biology course. Paper presentation at the *American Educational Research Association* (AERA), San Antonio, Texas, April 2017.
- Day, S., & **Bae, C. L.** (2017). Creating authentic tasks using the C3 framework in a classroom mini-economy. Paper presentation at the *College and University Faculty Assembly for Social Studies Education*, San Francisco, CA, November 2017.
- Lardy, C., Korb, M. DiStefano, R., **Bae, C.L.** (2017). Developing a Three-Dimensional View of Science Teaching: A Tool for Facilitating Preservice Teacher Learning Paper presented at the *National Association for Research in Science Teaching*, San Antonio, Texas, April 2017.
- Lee, C. S.,** Hayes, K. N., O'Connor, D., Seitz, J. C., & DiStefano, R. (2016). A survey tool for assessing distinct types of teacher leadership. Paper presented at the *American Educational Research Association* (AERA), Washington DC, April 2016.

- Lee, C. S.,** Hayes, K. N., O'Connor, D., Newman, A., Seitz, J. C., & DiStefano, R. (2016). Student Ideas In Middle School Science: Attending to Partial Understandings Regarding Science Phenomena. Paper presented at the *National Association for Research in Science Teaching*, Baltimore, MA, April 2016.
- Hayes, K., & **Bae, C. L.** (2016). An Organizational Capacity Framework: Supporting Educational Reform in Complex Contexts. Paper. University Council for Educational Administration, Detroit, November, 2016.
- DiStefano, R., **Lee, C.S.,** Lardy, C., LeDuc, D., & Korb, M. (2016). Developing Rubrics to Support Teachers' Understanding of the NGSS: An Improvement Science Approach. Paper presented at the *American Educational Research Association (AERA)*, Washington DC, April 2016.
- Lardy, C., **Lee, C. S.,** DiStefano, R., Korb, M., and LeDuc, D. (2016). Next Gen TARSC: Developing Tools to Support Teacher Learning and Application of NGSS. Paper presented at the *Association for Science Teacher Education (ASTE) International Meeting*, Reno, NV.
- Hayes, K. N., **Lee, C. S.,** DiStefano, R., Seitz, J., & O'Connor, D. (2016). Financial and Structural Resources Pivotal To Urban Science Education Reform: Resource Chains And Constellations. Paper presented at the *National Association for Research in Science Teaching*, Baltimore, MA, April 2016.
- Inouye, C., Hayes, K. N., **Lee, C. S.,** Seitz, J., O'Connor, D., & DiStefano, R. (2016). Reciprocal Learning in Science Professional Development: Faculty Shift their Practice. Paper presented at the *National Association for Research in Science Teaching*, Baltimore, MA, April 2016.
- Lee, C. S.,** Hedman, R., Hayes, K. N., O'Connor, D., Seitz, J., & DiStefano, R. (2015). Teachers Grappling with NGSS and Common Core: Empirically Examining Lesson Study Teams. Paper presented at the *National Association for Research in Science Teaching Annual Conference*, Chicago, IL, April 2015.
- Lee, C. S.,** O'Connor, D., Hayes, K. N., Seitz, J. C., & DiStefano, R. (2015). The Diverse Forms of Teacher Leadership: Examining Priorities, Skills, and Roles of Teacher Leaders in Middle School Science. Paper presented at the *American Educational Research Association (AERA)*, Chicago IL, April 2015.
- Lee, C. S.,** Huggins, A. C., & Therriault, D. J. (2014). What does the Remote Associates Test Measure? A CTT and IRT Approach to Examining a Creativity Test. Paper presented at the *American Psychological Association 122<sup>nd</sup> Annual Convention*, Division 10, Washington DC, August, 2014.



**Lee, C. S., Therriault, D. J., Fischler, I. S., Wafai, A. A., Williamson, J., & Heilman, K. M.** (2012). The Role of Intelligence and Personality on Creative Thinking, Behaviors, and Achievements. Paper presented at the *American Psychological Association 122<sup>nd</sup> Annual Convention*, Division 10, Orlando, FL, August, 2012.

**Lee, C. S., & Koro-Ljungberg, M. E.** (2012). “Breaking Methodological Boundaries: Creativity in Qualitative Research Designs”, Paper presented at *The Qualitative Report’s 3rd Annual Conference*, Fort Lauderdale, FL, January 2012.

**Posters, Panels, and Roundtables:**

**Bae, C. L.** (2018). A Multilevel Analysis of Classroom Learning Opportunities and Engagement in Middle School Science. *American Psychological Association, Division 15*, San Francisco, CA, August 2018.

**Bae, C. L., DeBusk-Lane, M. \*, & Hayes, K. N.** (2017). Student Engagement in Middle School Science: Findings across Socioeconomic Subgroups. Paper presentation at the *American Psychological Association, Division 15*, Washington DC, August 2017.

**Bae, C. L., Therriault, D. J., & Redifer, J. L.** (2017). Examining the Comparative Effectiveness of Retrieval-Based Study Strategies among College Students. Paper presentation at the *American Psychological Association, Division 15*, Washington DC, August 2017.

**Bae, C. L., Therriault, D. J., & Redifer, J. L.** (2017). The Added Benefit of Coupling Study Strategies with Retrieval Practice. Poster presentation at the *Association for Psychological Science*, May 2017.

**Bae, C. L., & Chow, J. C.** (2017). Elementary Mathematics and Science Learning: Definitions and a Cognitive Framework. Poster presentation at the *Association for Psychological Science*, May 2017.

Redifer, J. L., **Bae, C. L., & DeBusk-Lane, M. \*** (2017). Cognitive Load Mediates the Relationship Between Implicit Beliefs and Creative Thinking Scores. Poster presentation at the *Association for Psychological Science*, May 2017.

Hayes, K. N., **Bae, C. L., DiStefano, R., Seitz, J., & O'Connor, D.** (2017). Developing capacity for urban science education reform: The role of resource chains and constellations. Roundtable presented at the *American Educational Research Association (AERA)*, Washington DC, April 2017.

**Lee, C. S., Hayes, K. N., Seitz, J. C., DiStefano, R., & O'Connor, D.** (2016). Examining Students’ Motivational Structures that Differentially Predict Engagement and Achievement in Middle School Science. *American Educational Research Association (AERA)*, Washington DC, April 2016.

- Inouye, C., **Lee, C. S.**, & Hayes, K. N. (2016). Whiteboarding Draws Upon Multiple Learning Processes to Increase Performance in a College Biology Course. *American Educational Research Association (AERA)*, Washington DC, April 2016.
- Lee, C. S.**, Hayes, K. N., DiStefano, R., Seitz, J., & O'Connor, D. (2015). Examining Conditions to Support Lesson Study as a Vehicle for Integrating NGSS in Science Classrooms. Poster presented at the 2015 *National Association for Research in Science Teaching Annual Conference*, Chicago, IL.
- Lee, C. S.**, Hayes, K. N., Seitz, J. C., O'Connor, D., & DiStefano, R. (2015). Integrating NGSS Science Practices in Middle School Science Classrooms: Examining the Process of Two Lesson Study Teams. Round table presented at the *American Educational Research Association (AERA)*, Chicago IL, April 2015.
- Hayes, K. N., **Lee, C. S.**, Dozier, S., O'Connor, D., Seitz, J., & DiStefano, R. (2015). Measuring Science Instructional Practice: A Survey Tool for the Age of NGSS. Poster presented at the 2015 *National Association for Research in Science Teaching*, Chicago, IL.
- Redifer, J. L. & **Lee, C. S.** (2015). Believing that creativity cannot be improved hurts creative performance and increases cognitive load. Presented at the *Annual Meeting of the Association for Psychological Science*, New York, NY.
- Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). Middle School Science Professional Development Linked to Increases in Teachers' Content Knowledge and Inquiry-Based Teaching Practices. Poster presented at the *Association for Psychological Science 27th Annual Convention*, San Francisco, CA, May 2014.
- Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). Development of Inquiry-Based Science Lessons: A Video Analysis of Two Middle School Science Lesson Study Teams. Poster presented at the *Association for Psychological Science 27th Annual Convention*, San Francisco, CA, May 2014.
- Redifer, J.L. & **Lee, C. S.** (2014). Creative self-efficacy and creativity beliefs influence cognitive load during creative thinking tasks. Presented at the Annual Meeting of the *Association for Psychological Science*, San Francisco, CA, May 2014.
- Redifer, J.L. & **Lee, C. S.** (2014). Creativity beliefs and performance feedback influence creative problem-solving performance. Presented at the Annual Meeting of the *American Psychological Association*, Washington, D.C., August 2014.
- Lee, C. S.**, Therriault, D.J., & Redifer, J.L. (2013). Theories of creativity: Changing students' beliefs about creativity as a fixed or malleable ability. Presented at the *Annual Meeting of the American Psychological Association*, Honolulu, HI, August, 2014.
- Therriault, D. J., **Lee, C. S.**, & Schelble, J. S. (2013). Testing the testing effect: Retrieval, Test-generation, self-correction, and testing linked to increased future recall. Poster presented

at the *Association for Psychological Science 25th Annual Convention*, poster presentation, Washington DC, May 2013.

**Lee, C. S., Therriault, D. J.** (2013). A latent variable analysis exploring the role of intelligence and working memory in creative problem-solving processes. Poster presented at the *American Educational Research Association Annual Meeting 2013*, San Francisco, CA, April 2013.

**Lee, C. S., Curtis, R., & O'Connor, D.** (2013). Outcomes of Scaling and Sustaining Science Lesson Study. Presented at the *Lesson Study Conference*, Sacramento, CA, May, 2013.

Koro-Ljungberg, M. E., Douglas, E. P., McNeill, N. J., **Lee, C. S., & Therriault, D. J.** (2012). How can discourse analysis offer insights into students' problem solving processes? Panel speaker at the *Eighth International Congress of Qualitative Inquiry*. Urbana-Champaign, IL, May 2012.

**Lee, C. S.** (2012, November). Qualifying Exams and the Dissertation Process. Panel speaker at the *University of Florida Student Alliance of Graduates in Education Annual Event*, Gainesville, FL.

Schelble, J., Therriault, D. J., **Lee, C. S., & Wang, Y.** (2012). Working Memory Capacity and the Need for Cognition: Factors Relating to College Students' Choice of Leisure Activities. *American Psychological Association 120th Annual Convention*, Division 15, Orlando, FL, August, 2012.

### **Workshops:**

DiStefano, R., **Lee, C. S.,** and Lardy, C. (2015). Helping Beginning & Emerging NGSS Practitioners Unpack NGSS through Structured Dialogue. Workshop presented at *CSUEB NGSS/CCSS Conference* April 2015, Hayward, CA.

**Lee, C. S., & O'Connor, D.** (2015). NGSS Practices – Taking it to the Classroom. Presented at the *5th Annual STEAM Colloquium*, 2015, San Ramon, CA.

**Lee, C. S., & O'Connor, D.** (2014). Common Core for Science: Integrating Literacy in Science Classrooms. Presented at the *2nd Annual California STEM Symposium*, 2014, San Diego, CA.

O'Connor, D., & **Lee, C. S.** (2013). Scaling and Sustaining Middle School Science Lesson Study in San Francisco Bay. Presented at the *1st Annual California STEM Symposium*, 2013.

**Lee, C. S. & O'Connor, D.M.** (2013). Integrating Common Core and NGSS: Building Leadership Capacity to Transform Science Teaching and Learning. Presented at the *California Science Teachers Association Convention 2013*, Palm Springs, CA, October 2013.

Lee, C. S. & Vu, A. (2013). Lesson Study as a Vehicle to Integrate NGSS in Middle School Classrooms. Presented at the *California Science Teachers Association Convention 2013*, Palm Springs, CA, October 2013.

## **SPECIAL AWARDS AND OTHER HONORS**

*Outstanding Early Career Faculty Award* (VCU, 2019)  
*Distinguished Junior Faculty Award* (VCU School of Education, 2018)  
*Faculty Excellence Award* (VCU School of Education, 2018)  
*Presentation to Publication Pipeline Award* (VCU School of Education, 2018)  
*Faculty Scholarly Development Award* (VCU School of Education, 2017)  
*National Association for Research in Science Teaching Early Scholar Award Nominee* (2015)  
*I-Cubed Graduate Student Mentoring Award* (National Science Foundation, 2012)  
*Graduate Teaching Award* (University of Florida, 2012)  
*Student Travel Award* (American Psychological Association, 2012)  
*Graduate Student Council Travel Award* (University of Florida, 2012)  
*Professional Advancement Travel Award* (University of Florida, 2011)  
*Graduate Research Assistantship* (National Science Foundation, 2009 – 2012)  
*Graduate Teaching Assistantship* (University of Florida, 2008 – 2012)

## **RESEARCH EXPERIENCE**

Research Assistant 2009 – 2012  
University of Florida  
NSF Engineering Education Project  
*Examined the roles of domain knowledge, epistemic beliefs, and cognitive abilities in undergraduate engineering problem-solving.*

Internal Evaluation Research Assistant 2012  
University of Florida  
NSF Innovation through Institutional Integration (I-Cubed) Training Grant  
*Interviewed deans, faculty, and graduate students regarding STEM and Social, Educational, and Behavioral programs in the university.*

Graduate Research Assistant 2008 – 2011  
University of Florida  
College of Education, Cognitive Psychology Laboratory  
*Examined the roles of working memory, strategy acquisition, and creative cognition on problem-solving and learning processes.*

## **TEACHING AND ADVISING**

### **COURSES TAUGHT**

**Virginia Commonwealth University**

EDUS 720, Doctoral seminar in Motivation and Learning, 2019  
EDUS 712, Doctoral seminar in Mixed Methods Research, 2018  
EDUS 720, Doctoral seminar in Cognition and Learning in Schools, 2018  
EDUS 620, Doctoral seminar in Human Development in Education, 2017  
EDUS 617, Advanced Educational Psychology for Postsecondary Teachers, 2016  
EDUS 301, Human Development and Learning, 2016  
PSYC 494, Undergraduate Research Internship

### **California State University East Bay**

PSYC 4800, Human Learning and Cognition Laboratory, 2015 – 2016

### **University of Florida**

EDF 3110, Human Growth and Development throughout the Lifespan, 2008 – 2012  
EDF 3115, Child Development for Inclusive Education, 2009 – 2010

## **DISSERTATION COMMITTEES**

### *Committee Member*

Ashlee Lester, Educational Psychology, 2019, Foundations of Education  
Morgan DeBusk-Lane, Educational Psychology, 2019, Foundations of Education  
Jennifer Underwood, Counseling Education, 2019, Counseling and Special Education  
Eric Ekholm, Educational Psychology, 2018, Foundations of Education  
Drew Baker, Educational Psychology, 2017, Foundations of Education  
Savannah Love, Educational Psychology, 2018, Foundations of Education  
Melinda VanDevelder, Educational Leadership, 2018, Educational Leadership  
Anita Crowder, Educational Psychology, 2018, Foundations of Education

## **MENTORING OF STUDENT RESEARCH**

\*Indicates student author

McCormick, C. \*, Bradley, K. \*, Januska, B. \*, & **Bae, C.** (2018). *Elementary students' reading achievement: Comparing Teacher Preparation Programs*. Poster presented at VCU Poster Symposium for Undergraduate Research and Creativity, Richmond, VA.

Morris, J. \*, Gonzalez, J. \*, Castle, J. \*, & **Bae, C.** (2018). *Elementary students' math achievement: Comparing Teacher Preparation Programs*. Poster presented at VCU Poster Symposium for Undergraduate Research and Creativity, Richmond, VA.

Rivera, C. \*, Russell, D. \*, Maurer, J. \*, & **Bae, C.** (2018). *The effects of retrieval-based study strategies and student characteristics on final test performance*. Poster presented at VCU Poster Symposium for Undergraduate Research and Creativity, Richmond, VA.

Marroquin, Y. \*, Rosales, D. \*, Ndomo, R., **Lee, C. S.**, Seitz, J., Hayes, K., DiStefano, R., & O'Connor, D. (2016). 'Underrepresented Students' are not all the same: Examining science achievement among subgroup of English Language Learners and students from

low socioeconomic status. California State University (CSU) East Bay Student Research Symposium 2016. *Selected to compete in the 2016 CSU Statewide Research Competition, California State University Bakersfield.*

- Ndomo, R. \*, Chunn, M. \*, Kourtesi, D. \*, **Lee, C. S.**, Hayes, K., Seitz, J., DiStefano, R., & O'Connor, D. (2016). Student engagement in middle school science. California State University (CSU) East Bay Student Research Symposium 2016.
- Grailoo, F. \*, **Lee, C. S.**, Hayes, K., Seitz, J., DiStefano, R., & O'Connor, D. (2016). Examining the reliability and validity of scores from a students' science practices survey. California State University (CSU) East Bay Student Research Symposium 2016.
- Sabin, E. \*, Tran, V. \*, **Lee, C. S.**, Hayes, K., Seitz, J., DiStefano, R., & O'Connor, D. (2016). Identifying Outliers in Continuous Data: Examples from Middle School Teacher and Student Test Scores. California State University (CSU) East Bay Student Research Symposium 2016.
- Bajo, R. \*, Behr, D. \*, Hayes, K., **Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2016). Building resources for science education in a high poverty district. California State University (CSU) East Bay Student Research Symposium 2016.
- Cole, K. \*, Lardy, C., DiStefano, R., Korb, M., & **Lee, C. S.** (2016). Characterizing preservice secondary science teachers' descriptions of student engagement in analyzing and interpreting data. California State University (CSU) East Bay Student Research Symposium 2016.
- Echeandia, R. \*, Miranda, E. \*, **Lee, C. S.**, Hayes, K. N., DiStefano, R., Seitz, J., & O'Connor, D. (2015). Mastery Motivation and Efficacy Predict Achievement in Middle School Science. *Selected to present at the 2015 CSU Statewide Student Research Competition, California State University San Bernardino, CA. Received second place award in the Education strand.*
- Rosales, \* D., **Lee, C. S.**, Hayes, K. N., Seitz, J., DiStefano, R., & O'Connor, D. (2015). Students' Understanding of Science Ideas Revealed through Formative Assessment Probes. Presented at the 2015 Student Research Symposium, California State University East Bay, Hayward, CA.
- Salazar, C. \*, Himebaugh, T. \*, **Lee, C. S.**, Hayes, K. N., Seitz, J., DiStefano, R., & O'Connor, D. (2015). Conditions that Support Lesson Study Scaling. Presented at the 2015 Student Research Symposium, California State University East Bay, Hayward, CA.
- Nicolas, J. \*, Marroquin, Y. \*, Wong, N. \*, **Lee, C. S.**, Hayes, K. N., Seitz, J., DiStefano, R., & O'Connor, D. (2015). Examining Teacher and Student Outcomes of Middle School Science Lesson Study. Presented at the 2015 Student Research Symposium, California State University East Bay, Hayward, CA.

- Herrera, K. \*, Jamoosian, L. \*, Hayes, K. N., **Lee, C. S.**, Dozier, S., O'Connor, D., Seitz, J., & DiStefano, R. (2015). Science Instructional Practices Survey. Presented at the 2015 Student Research Symposium, California State University East Bay, Hayward, CA.
- Echeandia, R. \*, Miranda, E. \*, **Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). The Role of Motivation in Middle School Science Achievement. *Selected to present at the 2014 CSU Student Research Competition, California State University East Bay, CA.*
- Yu, Al. \*, Nicolas, K. \*, Tran, M. \*, **Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). Science Practices in Action: A Video-Based Analysis of Two Middle School Lesson Study Teams. Presented at the 2014 Student Research Symposium, California State University East Bay, Hayward, CA.
- Rodriguez, A. \*, Gonzalez, C. \*, Hinant, R. \*, **Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). America's Call To Improve Science Education: Professional Development Deepens Middle School Science Teachers' Content Knowledge. *Selected to present at the 2014 CSU Student Research Competition, California State University East Bay, CA.*
- Martinez, E. \*, Silva, R. \*, **Lee, C. S.**, Seitz, J., DiStefano, R., & O'Connor, D. (2014). Integrated Middle School Science (IMSS) Professional Development: Effects on Teachers' Science Content Knowledge and Practices. Selected for the 2014 CSU Student Research Competition, California State University East Bay, Hayward, CA.
- Barsch, K. \*, Rodriguez, K. \*, **Lee, C. S.**, & Therriault, D. J. (2012). The Cognitive Underpinnings of Innovation: Exploring the Cognitive Processes in Creative Thinking. *2012 University of Florida Graduate Student Day*, poster presentation, Gainesville, FL.
- Hannay, J. \*, Branscome, E. \*, **Lee, C. S.**, Schelble, J. L., & Therriault, D. J. Is Retrieval a Tool for Assessing Past Learning or a Tool for Enhancing Learning? *2012 University of Florida Graduate Student Day*, poster presentation, Gainesville, FL.

## S E R V I C E

### PROFESSIONAL SERVICE

#### **National Service:**

##### **Ad Hoc Reviews**

*Learning and Instruction, Contemporary Educational Psychology, Journal of Research in Science Teaching, Educational Psychology* (consulting editor), *Frontiers* (editorial board), *Journal of Applied Research in Memory and Cognition, Behavior Research Methods, Journal of Cognitive Psychology, Science Education, Education and Administration Quarterly, , Thinking and Reasoning, Psychology of Aesthetics, Creativity, and the Arts, Journal of School Leadership, Journal of Creative Behavior, American Journal of Psychology,*

*Educational Psychology Review, Scientometrics, SAGEOpen, Journal of Engineering Education, Educational Researcher*

**Grant Reviews**

*National Science Foundation (NSF) Grant Review Panelist* 2016 – present

Directorate for Social, Behavioral, and Economic (SBE) Sciences,  
Research Experiences for Undergraduates (REU)

Directorate for Social, Behavioral, and Economic (SBE) Sciences,  
Postdoctoral Research Fellowships (SPRF)

*Florida Department of Education Bureau of Family and Community Outreach, 21st Century Community Learning Centers Program, Gainesville, FL* 2012

**Book Review**

*SAGE Publications* 2012

**National Conference Chair/Panelist**

American Educational Research Association Division C Chair 2018

American Psychological Association Division 15 Panelist 2017

National Association for Research in Science Teaching Chair 2015

**Research Mentor**

American Psychological Association Division 15 2017 – present

Association for Psychological Science 2013 – 2014

**National Conference Proposal Reviews**

American Educational Research Association 2012 – present

American Psychological Association 2012 – present

National Association for Research in Science Teaching 2013 – 2016

Association for Psychological Science 2012 – 2014

**Virginia Commonwealth University:**

**University level**

Faculty Senate, *Alternate Representative* 2019

**School of Education**

SOE Director of Finance Committee, *Member* 2019

SOE Scholarship Committee, *Member* 2016 – present

Recruitment Specialist Search Committee, *Chair* 2017

SOE Budget Committee, *Member* 2017 – present

Richmond Teacher Residency Program, *Assessor* 2017 – present

Associate Dean of Research and Faculty Development Search 2018



Committee, <i>Member</i>	
Diversity, Equity, and Inclusion Committee, <i>Faculty Mentor</i>	2018
MERC Evaluation Specialist Search Committee, <i>Member</i>	2018

<b>Department of Foundations of Education</b>	
Foundations Budget Committee, <i>Member</i>	2017 – present
EDPS Faculty Search Committee, <i>Co-Chair</i>	2018
EDPS Track Coordinator	2019

## **PROFESSIONAL AND ACADEMIC AFFILIATIONS**

American Psychological Association (APA) <i>Division 15 (Educational Psychology)</i>	2011 – present
American Educational Research Association (AERA) <i>Division C (Learning and Instruction)</i>	2011 – present
National Association for Research in Science Teaching (NARST)	2013 – 2016
Association for Psychological Science (APS)	2011 – 2017
Society for Research on Educational Effectiveness (SREE)	2016

## **GUEST LECTURES, REPORTS, AND OTHER PUBLICATIONS FOR THE PUBLIC**

Dissemination of Research Findings, “Keeping Kids Interest in STEM Can Lead to Later Success”, (December, 2019), <https://anovicejournalist.com/kids-and-stem>

VCU School of Education Annual Research Colloquium, **Bae, C. L.** (2018, April). *Student Engagement and Opportunities to Participate in Science Practices.*

VCU School of Education Brown Bag Presenter, **Bae, C. L.** (2016, December). *Learning in Middle School and University Science Classrooms.*

VCU *MPlus* Group Presenter, **Bae, C. L.** (2016, September). *Testing Measurement Invariance across Middle School Grades and Socioeconomic Status Groups for Middle School Science.*

Webinar Presenter, Distefano, R., **Bae, C. L.**, DeLuc, D., Korb, M., Lardy, C., Sinapuelas, M. (2016, December). *Next Gen ASET 3-Dimensional Science Teacher Preparation: Supporting Faculty in Reforming their Courses. Part 2: Networked Improvement Communities.* WestEd online webinar.

Webinar Presenter, Distefano, R., **Bae, C. L.**, DeLuc, D., Korb, M., Lardy, C., Sinapuelas, M. (2016, October). *Next Gen ASET 3-Dimensional Science Teacher Preparation:*

*Supporting Faculty in Reforming their Courses. Part 1: The Next Gen Alliance for Science Education Toolkit (ASET Toolkit).* WestEd online webinar.

Invited Speaker, **Lee, C. S.**, O'Connor, D., & Hayes, K. (2014). *A Professional Development Model for Improving Science Education*. Presented at California State University East Bay, Hayward, CA.

Invited Speaker, **Lee, C. S.** (2014). *How to Write a Curriculum Vitae for Graduate School*. Presented at California State University East Bay, Hayward, CA.

Dissemination of Research Findings, *Journal of Engineering Education Selects in American Society for Engineering Education PRISM*, **Lee, C. S.**, McNeill, N. J., Douglas, E. P., Koro-Ljungbert, M. E., & Therriault, D. J. (2013). Indispensable Resource? Phenomenology of Textbook Use in Engineering Problem Solving, September, 2013. <http://www.asee-prism.org/jee-selects/>

Invited Speaker, **Lee, C. S.** (2013, October). *Exploring the Relationships among Intelligence, Working Memory, and Three Types of Creative Thinking Using Latent Variable Analysis*. Presented at University of California Riverside, Riverside, CA.

Volunteer, *Citizen Schools* Extended Learning Apprenticeship Teacher, 2014. Prepared and co-taught science lessons at Elmhurst Community Preparatory School, Oakland CA.

Dissemination of Research Findings, *Association for Psychological Science Student Caucus Undergraduate Update*, **Lee, C. S.** (2013). "Be More than Just a 'Good Student': Exploring Creative Ways for Successful Learning". [http://www.psychologicalscience.org/index.php/members/apssc/undergraduate\\_update/undergraduate-update-summer-2013/be-more-than-just-a-good-student-exploring-creative-ways-for-successful-learning](http://www.psychologicalscience.org/index.php/members/apssc/undergraduate_update/undergraduate-update-summer-2013/be-more-than-just-a-good-student-exploring-creative-ways-for-successful-learning)

Dissemination of Research Findings, *Creativity Post* Columnist, **Lee, C. S.**, 2012. "Can You Become Smarter? Students Who Say 'Yes' Act More Intelligently", September 26, 2012. [http://www.creativitypost.com/education/can\\_you\\_become\\_smarter\\_students\\_who\\_say\\_yes\\_act\\_more\\_intelligently](http://www.creativitypost.com/education/can_you_become_smarter_students_who_say_yes_act_more_intelligently)

Dissemination of Research Findings, *Creativity Post* Columnist, **Lee, C. S.**, 2012. "How to Draw Inspiration in the 'Publish or Perish' Field of Academia". August 13, 2012. [http://www.creativitypost.com/education/how\\_to\\_draw\\_inspiration\\_in\\_the\\_publish\\_or\\_perish\\_field\\_of\\_academia1](http://www.creativitypost.com/education/how_to_draw_inspiration_in_the_publish_or_perish_field_of_academia1)

Dissemination of Research Findings, *Pacific Standard*, "To Boost Creativity, Study Abroad", August 6, 2012. <http://www.psmag.com/books-and-culture/to-boost-creativity-study-abroad-43897>

Tutor, University of Florida, College of Education, 2012. Provided one-on-one tutoring and mentorship for preservice teachers, Gainesville FL.

Mentor, 2012. *Association for Psychological Science Student Caucus.*

Invited Speaker, **Lee, C. S.**, & Therriault, D. J. (2012, October). *On the Cognitive Benefits of Cultural Experiences: Exploring the Relationship between Studying Abroad and Creativity.* Presented at the University of Florida International Center, Gainesville, FL.

Invited Speaker, **Lee, C. S.** (2012, March). *Phenomenological Analysis: Discovering the Essence of Lived Experiences.* Presented at the University of Florida Department of Research Evaluation and Methodology for a Seminar in Qualitative Data Analysis, Gainesville, FL.

Invited Speaker, **Lee, C. S.** (2012, March). *Exploring the Relationships among Intelligence, Personality, Creative Thinking, and Creative Behaviors.* Presented at the University of Florida Center for Neuropsychological Studies (CfNS), Gainesville, FL.

## **CERTIFICATIONS AND SKILLS**

Proficient with SPSS, MPLUS, and Dedoose

Experienced with HLM and R

International Teaching English as a Foreign Language (TEFL) Certificate

Conversational in Korean and French