

OKHEE LEE

CURRICULUM VITAE

CONTACT INFORMATION

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PERSONAL INFORMATION

Birthplace: Daegu, South Korea
Citizenship: U.S. citizen

EDUCATION

1984-1989 Michigan State University, East Lansing, MI
PhD in educational psychology with an emphasis on learning and cognition (academic advisor: Andrew C. Porter)
Dissertation: Motivation to Learn Science in Middle School Science Classrooms (dissertation director: Charles W. Anderson)

1981-1983 Kyungpook National University, South Korea
MA in education with an emphasis on educational psychology and instructional design

1977-1981 Kyungpook National University, South Korea
BA in English language
Teaching certificate: Teaching English as a Foreign Language (TEFL) in secondary school

ACADEMIC POSITIONS

2011-present Professor, Department of Teaching and Learning, Steinhardt School of Culture, Education, and Human Development, New York University

2000-2011 Professor, Department of Teaching and Learning, School of Education, University of Miami

1997-2000	Associate Professor, Department of Teaching and Learning, School of Education, University of Miami
1993-1997	Assistant Professor, Department of Teaching and Learning, School of Education, University of Miami
1992-1993	Adjunct Assistant Professor, Department of Teaching and Learning, School of Education, University of Miami
1990-1992	Research Associate, Department of Teaching and Learning, School of Education, University of Miami
1990-1991	Director of Undergraduate Advising, School of Education, University of Miami
1989-1990	Lecturer, Department of Teaching and Learning, School of Education, University of Miami
1989	Adjunct Instructor, Department of Psychology and Education, Miami-Dade Community College
1983-1984	Adjunct Instructor, Teachers' College and College of Music and Visual Arts, Kyungpook National University, Daegu, South Korea
1983	Adjunct Instructor, College of Elementary Teacher Education, Daegu, South Korea
1983	Adjunct Instructor, College of Home Economics, Daegu, South Korea

AWARDS AND HONORS

2022	Honorary Doctor of Humanities Degree recipient and keynote speaker at Baccalaureate Commencement Ceremony, Michigan State University
2021	Exemplary Contributions to Practice-Engaged Research Award from the American Educational Research Association <i>Note:</i> See the award ceremony, https://www.aera.net/Events-Meetings/AERA-2021-Awards-Virtual-Celebration
2020	Distinguished Service to Science Education Award from the National Science Teaching Association
2015-2020	RHSU Edu-Scholar Public Influence Rankings: 2020 (120), 2019 (106), 2018 (86), 2017 (77), 2016 (121), 2015 (110)

- 2019 Innovations in Research on Equity and Social Justice in Teacher Education Award from the American Educational Research Association Division K Teaching and Teacher Education
- 2019 Inaugural Distinguished Researcher Award from the Korean-American Educational Researchers Association
- 2017 Outstanding Educator of the Year by *Education Update*
- 2016 REVERE Awards finalist for Lee, O., Miller, E., & Januszyk, R. (Eds.). (2015). *NGSS for all students*. National Science Teachers Association
- Note:* This was supported by the Next Generation Science Standards and Achieve, Inc.
- 2014 Educational Leadership Award from the National Association of Bilingual Education and the Florida Association of Bilingual Education
- 2008 University of Miami Provost's Award for Research Activity
- Note:* The award is given each year to three to five faculty members across the University of Miami
- 2007 Florida Educational Research Association Distinguished Paper Award
- 2003 Distinguished Career Contribution Award from the American Educational Research Association Standing Committee for Scholars of Color in Education
- 1988 Sage Doctoral Dissertation Grant, College of Education, Michigan State University
- 1987 Scholarship Award, Arthur T. and Pearl Butler Scholarship, College of Education, Michigan State University

FELLOWSHIPS

- 2022 National Academy of Education member
- 2021 AAAS Fellow, American Association for the Advancement of Science, Section Q Education
- 2011 Faculty in Residence Summer Term, University of Colorado at Boulder
- 2008-2011 Kurtz Fellow, School of Education, University of Miami
- 2009 Fellow of the American Educational Research Association

- 1996-1997 Fellow at the National Institute for Science Education funded by the National Science Foundation and Wisconsin Center for Education Research at the University of Wisconsin-Madison
- 1993-1995 National Academy of Education Spencer Postdoctoral Fellowship
Topic: Children's Views of the World in Social and Cultural Contexts
- 1994 Visiting Scholar, Minority Visiting Scholars Program. Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison
Topic: Children's World Views in Social and Cultural Contexts
- 1984-1987 Graduate Research Intern, selected as one of five doctoral students each year for the intern training program at the Institute for Research on Teaching, College of Education, Michigan State University

REFEREED JOURNAL ARTICLES

126. Lee, O., Grapin, S. E., & Haas, A. (accept with minor revisions). Teacher professional development programs integrating science and language with multilingual learners: A conceptual framework. *Science Education*.
125. Taylor, J., Hanuscin, D., Lee, O., Lynch, S., Stuhlsatz, M., & Talbot, R. (accept with minor revisions). Sources and consequences of teacher attrition in large-scale impact studies. *Research in Education*.
124. Grapin, S. E., Haas, A., Llosa, L., Wendel, D., Pierson, A., & Lee, O. (accept with minor revisions). Multilingual learners' epistemologies in practice in the context of computational modeling in an elementary science classroom. *Journal of Research in Science Teaching*.
123. Grapin, S. E., Haas, A., McCoy, X., & Lee, O. (in press). Justice-centered STEM education with multilingual learners: Conceptual framework and initial inquiry into pre-service teachers' sense-making. *Journal of Science Teacher Education*.
122. Grapin, S. E., Dudek, S., & Lee, O. (in press). Justice-centered STEM education with multilingual learners: Computational modeling to explain and design solutions to COVID-19 disparities. *Science Scope*.
121. Grapin, S. E., Llosa, L., & Lee, O. (in press). Disciplinary practices with English learners in the content areas: Investigating *grasp of practice* in fifth-grade science. *Journal of Language, Identity & Education*. <https://doi.org/10.1080/15348458.2021.2008253>
120. Grapin, S. E., Haas, A., Llosa, L., & Lee, O. (in press). Developing instructional materials for English learners in the content areas: An illustration of traditional and contemporary approaches in science. *TESOL Journal*. <https://onlinelibrary.wiley.com/doi/abs/10.1002/tesj.673>

119. Grapin, S. E., Llosa, L., Haas, A., & Lee, O. (2022). Affordances of computational models for English learners in science: Theoretical foundations and initial inquiry. *Journal of Science Education and Technology*, 31(1), 52-67. <https://link.springer.com/article/10.1007/s10956-021-09930-3>
118. Lee, O., & Grapin, S. E. (2022). The role of phenomena and problems in science and STEM education: Traditional, contemporary, and future approaches. *Journal of Research in Science Teaching*, 59(7), 1301-1309. <https://onlinelibrary.wiley.com/doi/10.1002/tea.21776>
- Note:* See a commentary by Adah Miller, E., Makori, H., Akgun, S., Miller, C., Li, T., & Codere, S. (2022). Including teachers in the social justice equation of project-based learning: A response to Lee & Grapin. *Journal of Research in Science Teaching*, 59(9), 1726-1732. <https://doi.org/10.1002/tea.21805>
117. Lee, O., Bauler, C., Kang, E., & Ocol, T. (2022). “Doing” science, using language: Professional development to promote science and language integration with a focus on multilingual learners. *NYS TESOL Journal*, 9(1), 3-15. http://journal.nystesol.org/nystj_vol9_1.html
116. Lee, S., Russell, J., Campbell, J., & Lee, O. (2022). Student agency through engineering. *Science and Children*, 59(3), 48-55. <https://www.nsta.org/science-and-children/science-and-children-januaryfebruary-2022/student-agency-through-engineering#>
115. Grapin, S. E., & Lee, O. (2022). WIDA English language development standards framework, 2020 edition: Key shifts and emerging tensions. *TESOL Quarterly*, 56(2), 827-839. <https://onlinelibrary.wiley.com/doi/10.1002/tesq.3092>
114. Grapin, S. E., Llosa, L., Haas, A., & Lee, O. (2021). Rethinking instructional strategies with English learners in the content areas in light of contemporary perspectives on content and language learning. *TESOL Journal*, 12(2), 1-12. <https://doi.org/10.1002/tesj.557>
113. Haas, A., Januszyk, R., Grapin, S. E., Goggins, M., Llosa, L., & Lee, O. (2021). Developing instructional materials aligned to the Next Generation Science Standards for all students, including English learners. *Journal of Science Teacher Education*. 32(7), 735-756. <https://www.tandfonline.com/doi/full/10.1080/1046560X.2020.1827190>
112. Haas, A., Grapin, S. E., Simon, K., Llosa, L., & Lee, O. (2021, May/June). Integrating computational modeling into science instruction with English learners. *Science and Children*, 74-79. <https://www.nsta.org/science-and-children/science-and-children-mayjune-2021/integrating-computational-modeling-science>
111. Lee, O. (2021). Asset-oriented framing of science and language with multilingual learners. *Journal of Research in Science Teaching*, 58(7), 1073-1979. <https://doi.org/10.1002/tea.21694>

110. **Lee, O.** (2020). Science and language instructional shifts with second-language learners. *Asian-Pacific Science Education*, 6(2), 263-284. <https://doi.org/10.1163/23641177-BJA10005>
109. **Lee, O., & Campbell, D. T.** (2020). What science and STEM teachers can learn from COVID-19: Harnessing data science and computer science through the convergence of multiple STEM subjects. *Journal of Science Teacher Education*, 31(8), 932-944. <https://doi.org/10.1080/1046560X.2020.1814980>
108. **Lee, O.** (2020). Making everyday phenomena phenomenal: Using phenomena to promote equity in science instruction. *Science and Children*, 58(1), 56-61. <https://www.nsta.org/science-and-children/science-and-children-septemberoctober-2020/making-everyday-phenomena>
107. **Lee, O., & Stephens, A.** (2020). English learners in STEM subjects: Contemporary views on STEM subjects and language with English learners. *Educational Researcher*, 49(6), 426-432. <https://doi.org/10.3102%2F0013189X20923708>
106. Haas, A., Grapin, S. E., Wendel, D., Llosa, L., & **Lee, O.** (2020). How fifth-grade English learners engage in systems thinking using computational models. *Systems*, 8(4), 47. <https://doi.org/10.3390/systems8040047>
105. **Lee, O.** (2019). Aligning English language proficiency standards with content standards: Shared opportunity and responsibility across English learner education and content areas. *Educational Researcher*, 48(8), 534-542. <https://doi.org/10.3102%2F0013189X19872497>
- Note:* See the related video on the American Educational Research Association website, <https://www.youtube.com/watch?v=RkDi0rNGuDs&feature=youtu.be>
- Note:* See the *Education Week* blog on this article, <https://www.edweek.org/policy-politics/for-english-learners-to-excel-more-collaboration-needed-researcher-argues/2019/10>
- Note:* Listen to *Conversations with Tim: Examining How the 2020 Edition Impacts Multilingual Learner Education*, <https://wida.wisc.edu/about/news/conversations-tim-examining-how-2020-edition-impacts-multilingual-learner-education>
104. **Lee, O., & Januszyk, R.** (2019). Formative assessment of English language proficiency in the science classroom. *Science and Children*, 56(9), 80-85. <https://www.nsta.org/science-and-children/science-and-children-july-2019/formative-assessment-english-language>
103. **Lee, O., Llosa, L., Grapin, S. E., Haas, A., & Goggins, M.** (2019). Science and language integration with English learners: A conceptual framework guiding instructional materials development. *Science Education*, 103(2), 317-337. <https://doi.org/10.1002/sc.21498>

102. Grapin, S. E., Haas, A., Goggins, M., Llosa, L., & Lee, O. (2019). Beyond general-purpose talk moves: Using discipline-specific probes with English learners in the science classroom. *Science and Children*, 57(4), 36-43. <https://www.nsta.org/science-and-children/science-and-children-novemberdecember-2019/beyond-general-purpose-talk-moves-0>
101. Grapin, S. E., Llosa, L., Haas, A., Goggins, M., & Lee, O. (2019). Precision: Toward a meaning-centered view of language use with English learners in the content areas. *Linguistics and Education*, 50(1), 71-83. <https://doi.org/10.1016/j.linged.2019.03.004>
100. Goggins, M., Haas, A., Grapin, S. E., Llosa, L., & Lee, O. (2019). Integrating crosscutting concepts into science instruction. *Science and Children*, 57(1), 56-61. <https://www.nsta.org/science-and-children/science-and-children-september-2019/integrating-crosscutting-concepts-0>
99. Lee, O. (2018). English language proficiency standards aligned with content standards. *Educational Researcher*, 47(5), 317-327. <https://doi.org/10.3102%2F0013189X18763775>
98. Lee, O. (2017). Common Core State Standards for ELA/literacy and Next Generation Science Standards: Convergences and discrepancies using argument as an example. *Educational Researcher*, 46(2), 90-102. <https://doi.org/10.3102%2F0013189X17699172>
- Note:* See the *Education Week* blog on this article, http://blogs.edweek.org/edweek/curriculum/2017/04/science_standards_common_core.html
97. Diamond, B., Maerten-Rivera, J., & Lee, O. (2017). Effects of a multiyear curricular and professional development intervention on elementary teachers' science content knowledge. *Florida Journal of Educational Research*, 55(2), 1-24. <https://feraonline.org/journal/journal-contents/?issue=2017-volume-55>
96. Lee, O., Llosa, L., Jiang, F., Haas, A., O'Connor, C., & Van Booven, C. (2016). Elementary teachers' science knowledge and instructional practices: Impact of an intervention focused on English language learners. *Journal of Research in Science Teaching*, 53(4), 579-597. <https://doi.org/10.1002/tea.21314>
95. Lee, O., Llosa, L., Jiang, F., O'Connor, C., & Haas, A. (2016). School resources in teaching science to diverse student groups: An intervention's effect on elementary teachers' perceptions. *Journal of Science Teacher Education*, 27(7), 769-794. <https://doi.org/10.1007/s10972-016-9487-y>
94. Caswell, L., Martinez, A., Lee, O., Berns, B. B., & Rhodes, H. (2016). Analysis of the National Science Foundation's Discovery Research K-12 on mathematics and science education for English learners. *Teachers College Record*, 118(5), 1-48. <https://www.tcrecord.org/Content.asp?ContentId=19368>

93. Maerten-Rivera, J., Ahn, S., Lanier, K., Diaz, J., & Lee, O. (2016). Effect of a multiyear intervention on science achievement of all students including English language learners. *The Elementary School Journal*, 116(4), 600-623. <https://doi.org/10.1086/686250>
92. Llosa, L., Lee, O., Jiang, F., Haas, A., O'Connor, C., Van Booven, C. D., & Kieffer, M. (2016). Impact of a large-scale science intervention focused on English language learners. *American Educational Research Journal*, 53(2), 395-424. <https://doi.org/10.3102%2F0002831216637348>
91. Januszyk, R., Miller, E. C., & Lee, O. (2016). Addressing student diversity and equity: The Next Generation Science Standards are leading a new wave of reform. *Science Scope*, 39(8), 16-19. <https://www.jstor.org/stable/43827310>
90. Maerten-Rivera, J. L., Huggins-Manley, A. C., Adamson, K., Lee, O., & Llosa, L. (2015). Development and validation of a measure of elementary teachers' science content knowledge in two multiyear teacher professional development intervention projects. *Journal of Research in Science Teaching*, 52(3), 371-396. <https://doi.org/10.1002/tea.21198>
89. Haas, A., Hollimon, S., & Lee, O. (2015). Methods & strategies: Deep assessment. *Science and Children*, 53(3), 73-77. <https://www.jstor.org/stable/43692233>
88. Miller, E., Januszyk, R., & Lee, O. (2015). NGSS in action. *Science and Children*, 53(2), 64-70. <https://www.jstor.org/stable/43691981>
87. Miller, E. C., Januszyk, R., & Lee, O. (2015). Engineering progressions in the NGSS diversity and equity case studies. *Science Scope*, 38(9), 27-30. <https://www.jstor.org/stable/43691290>
86. Llosa, L., Van Booven, C. D., & Lee, O. (2015). Teaching content standards to English language learners: Elementary science teachers' use of language development and home language strategies. *NYS TESOL Journal*, 2(2), 6-19. <http://journal.nystesol.org/july2015/6elementaryscienceteachers.pdf>
85. Buxton, C. A., Salinas, A., Mahotiere, M., Lee, O., & Secada, W. G. (2015). Fourth-grade emergent bilingual learners' scientific reasoning complexity, controlled experiment practices, and content knowledge when discussing school, home, and play contexts. *Teachers College Record*, 117(2), 1-36.
84. Januszyk, R., Miller, E., & Lee, O. (2014). Guest editorial: NGSS case studies: Economically disadvantaged students developing conceptual models. *Science Scope*, 38(4), 6-11. <https://www.jstor.org/stable/43691208>
83. Lee, O., Miller, E. C., & Januszyk, R. (2014). Next Generation Science Standards: All standards, all students. *Journal of Science Teacher Education*, 25(2), 223-233. <https://doi.org/10.1007/s10972-014-9379-y>

82. Turkan, S., De Oliveira, L. C., **Lee, O.**, & Phelps, G. (2014). Proposing a knowledge base for teaching academic content to English language learners: Disciplinary linguistic knowledge. *Teachers College Record*, 116(3), 1-30. <https://www.tcrecord.org/content.asp?contentid=17361>
81. Maerten-Rivera, J. L., Myers, N. D., & **Lee, O.** (2014). Studying longitudinal change in teacher practices using the multilevel model and latent growth model with an examination of alternative covariance structures. *International Journal of Quantitative Research in Education*, 2(2), 89-112. <https://doi.org/10.1504/IJQRE.2014.064395>
80. Cone, N., Buxton, C. A., **Lee, O.**, & Mahotiere, M. (2014). Negotiating a sense of identity in a foreign land: Navigating public school structures and practices that often conflict with Haitian culture and values. *Urban Education*, 49(3), 125-148. <https://doi.org/10.1177%2F0042085913478619>
79. Diamond, B. S., Maerten-Rivera, J., Rohrer, R. E., & **Lee, O.** (2014). Effectiveness of a curricular and professional development intervention at improving elementary teachers' science content knowledge and student achievement outcomes: Year 1 results. *Journal of Research in Science Teaching*, 51(5), 635-658. <https://doi.org/10.1002/tea.21148>
78. **Lee, O.**, Quinn, H., & Valdés, G. (2013). Science and language for English language learners in relation to Next Generation Science Standards and with implications for Common Core State Standards for English language arts and mathematics. *Educational Researcher*, 42(4), 223-233. <https://doi.org/10.3102%2F0013189X13480524>
- Note:* See the related video on the American Educational Research Association website, <https://www.youtube.com/watch?v=Ch05eSKObUM>
77. **Lee, O.**, & Buxton, C. A. (2013). Teacher professional development to improve science and literacy achievement of English language learners. *Theory Into Practice*, 52(2), 110-117. <https://doi.org/10.1080/00405841.2013.770328>
76. **Lee, O.**, & Buxton, C. A. (2013). Integrating science and English proficiency for English language learners. *Theory Into Practice*, 52(1), 36-42. <https://doi.org/10.1080/07351690.2013.743772>
75. Adamson, K., Santau, A., & **Lee, O.** (2013). The impact of professional development on elementary teachers' strategies for teaching science with diverse student groups in urban elementary schools. *Journal of Science Teacher Education*, 24(3), 553-571. <https://doi.org/10.1007/s10972-012-9306-z>
74. Buxton, C. A., Salinas, A., Mahotiere, M., **Lee, O.**, & Secada, W. G. (2013). Leveraging cultural resources through teacher pedagogical reasoning: Elementary grade teachers analyze second language learners' science problem solving. *Teaching and Teacher Education*, 32(1), 31-42. <https://doi.org/10.1016/j.tate.2013.01.003>

73. Diamond, B. S., Maerten-Rivera, J., Rohrer, R., & Lee, O. (2013). Elementary teachers' science content knowledge: Relationships among multiple measures. *Florida Journal of Educational Research, 51*(1), 1-20. <https://doi.org/10.1016/j.tate.2013.01.003>
72. Lee, O., & Maerten-Rivera, J. (2012). Teacher change in elementary science instruction with English language learners: Results of a multiyear professional development intervention across multiple grades. *Teachers College Record, 114*(8), 1-44. <https://www.researchgate.net/publication/287014025>
71. Emdin, C., & Lee, O. (2012). Hip-hop, the "Obama effect," and urban science education. *Teachers College Record, 114*(2), 1-24. <https://www.tcrecord.org/Content.asp?ContentId=16245>
70. Lee, O., Penfield, R. D., & Buxton, C. A. (2011). Relationship between "form" and "content" in science writing among English language learners. *Teachers College Record, 113*(7), 1401-1434. <https://www.tcrecord.org/Content.asp?ContentId=16073>
69. Lee, O., & Buxton, C. A. (2011). Engaging culturally and linguistically diverse students in learning science. *Theory Into Practice, 50*(4), 277-284. <https://doi.org/10.1080/00405841.2011.607379>
68. Adamson, K., Secada, W., Maerten-Rivera, J., & Lee, O. (2011). Measurement instruction in the context of scientific investigations with diverse student populations. *School Science and Mathematics, 111*(6), 288-299. <https://doi.org/10.1111/j.1949-8594.2011.00089.x>
67. Lewis, S., Maerten-Rivera, J., Adamson, K., & Lee, O. (2011). Urban third grade teachers' practices and perceptions in science instruction with English language learners. *School Science and Mathematics, 111*(4), 156-163. <https://doi.org/10.1111/j.1949-8594.2011.00073.x>
66. Lewis, S., Lee, O., Santau, A., & Cone, N. (2010). Student initiatives in urban elementary science classrooms. *School Science and Mathematics, 110*(3), 160-172. <https://doi.org/10.1111/j.1949-8594.2010.00018.x>
65. Maerten-Rivera, J., Myers, N., Lee, O., & Penfield, R. (2010). Student and school predictors of high-stakes assessment in science. *Science Education, 94*(6), 937-962. <https://doi.org/10.1002/sce.20408>
64. Penfield, R. D., & Lee, O. (2010). Test-based accountability: Potential benefits and pitfalls of science assessment with student diversity. *Journal of Research in Science Teaching, 47*(1), 6-24. <https://doi.org/10.1002/tea.20307>
63. Santau, A. O., Secada, W., Maerten-Rivera, J., Cone, N., & Lee, O. (2010). US urban elementary teachers' knowledge and practices in teaching science to English language learners: Results from the first year of a professional development intervention.

- International Journal of Science Education*, 32(15), 2007-2032.
<https://doi.org/10.1080/09500690903280588>
62. **Lee, O.**, Mahotiere, M., Salinas, A., Penfield, R. D., & Maerten-Rivera, J. (2009). Science writing achievement among English language learners: Results of three-year intervention in urban elementary schools. *Bilingual Research Journal*, 32(2), 153-167. <https://doi.org/10.1080/15235880903170009>
 61. **Lee, O.**, Penfield, R., & Maerten-Rivera, J. (2009). Effects of fidelity of implementation on science achievement gains among English language learners. *Journal of Research in Science Teaching*, 46(7), 836-859. <https://doi.org/10.1002/tea.20335>
 60. **Lee, O.**, Maerten-Rivera, J., Buxton, C. A., Penfield, R., & Secada, W. G. (2009). Urban elementary teachers' perspectives on teaching science to English language learners. *Journal of Science Teacher Education*, 20(3), 263-286. <https://doi.org/10.1007/s10972-009-9133-z>
 59. Kitchen, R. S., Roy, F. C., **Lee, O.**, & Secada, W. G. (2009). Comparing teachers' conceptions of mathematics education and student diversity at highly effective and typical elementary schools. *Journal for Urban Mathematics Education*, 2(1), 52-80. <https://doi.org/10.21423/jume-v2i1a24>
 58. Maerten-Rivera, J., Penfield, R., Myers, N., **Lee, O.**, & Buxton, C. A. (2009). School and teacher predictors of science instruction practices with English language learners in urban elementary schools. *Journal of Women and Minorities in Science and Engineering*, 15(2), 93-118. <https://doi.org/10.1615/JWomenMinorScienEng.v15.i2.10>
 57. Buxton, C. A., **Lee, O.**, & Mahotiere, M. (2009). The role of language in academic and social transition of Haitian children and their parents to urban U.S. schools. *Bilingual Research Journal*, 31(1-2), 47-74. <https://doi.org/10.1080/15235880802640573>
 56. Penfield, R. D., Alvarez, K., & **Lee, O.** (2008). Using a taxonomy of differential step functioning form to improve the interpretation of DIF in polytomous items. *Applied Measurement in Education*, 22(1), 61-78. <https://doi.org/10.1080/08957340802558367>
 55. Bessell, A. G., Burke, M. C., Plaza, M. P., **Lee, O.**, & Schumm, J. S. (2008). The educational reform rating rubric: Example of a new tool for evaluating complex school reform initiatives. *Field Methods*, 20(3), 283-295. <https://doi.org/10.1177%2F1525822X07313838>
 54. Buxton, C. A., **Lee, O.**, & Santau, A. (2008). Promoting science among English language learners: Professional development for today's culturally and linguistically diverse classrooms. *Journal of Science Teacher Education*, 19(5), 495-511. <https://doi.org/10.1007/s10972-008-9103-x>

53. Luykx, A., **Lee, O.**, & Edwards, U. (2008). Lost in translation: Negotiating meaning in a beginning ESOL science classroom. *Educational Policy*, 22(5), 640-674. <https://doi.org/10.1177%2F0895904807307062>
52. **Lee, O.**, & Buxton, C. A. (2008). Science curriculum and student diversity: A framework for equitable learning opportunities. *The Elementary School Journal*, 109(2), 123-137. <https://doi.org/10.1086/590522>
51. **Lee, O.**, Adamson, K., Maerten-Rivera, J., Lewis, S., Thornton, C., & LeRoy, K. (2008). Teachers' perspectives on a professional development intervention to improve science instruction among English language learners. *Journal of Science Teacher Education*, 19(1), 41-67. <https://doi.org/10.1007/s10972-007-9081-4>
50. **Lee, O.**, Lewis, S., Adamson, K., Maerten-Rivera, J., & Secada, W. G. (2008). Urban elementary school teachers' knowledge and practices in teaching science to English language learners. *Science Education*, 92(4), 733-758. <https://doi.org/10.1002/sce.20255>
49. **Lee, O.**, Maerten-Rivera, J., Penfield, R. D., LeRoy, K., & Secada, W. G. (2008). Science achievement of English language learners in urban elementary schools: Results of a first-year professional development intervention. *Journal of Research in Science Teaching*, 45(1), 31-52. <https://doi.org/10.1002/tea.20209>
48. **Lee, O.**, Deaktor, R., Enders, C., & Lambert, J. (2008). Impact of a multiyear professional development intervention on science achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching*, 45(6), 726-747. <https://doi.org/10.1002/tea.20231>
47. **Lee, O.**, Luykx, A., Buxton, C. A., & Shaver, A. (2007). The challenge of altering elementary school teachers' beliefs and practices regarding linguistic and cultural diversity in science instruction. *Journal of Research in Science Teaching*, 44(9), 1269-1291. <https://doi.org/10.1002/tea.20198>
46. **Lee, O.**, Lester, B. T., Ma, L., Lambert, J., & Jean-Baptiste, M. (2007). Conceptions of the greenhouse effect and global warming among elementary students from diverse languages and cultures. *Journal of Geoscience Education*, 55(2), 117-125. <https://doi.org/10.5408/1089-9995-55.2.117>
45. Luykx, A., **Lee, O.**, Barnett, J. E. H., Mahotiere, M., Lester, B., & Deaktor, R. (2007). Cultural and home language influences on children's responses to science assessments. *Teachers College Record*, 109(4), 897-926. <https://www.researchgate.net/publication/275044162>
44. Luykx, A., & **Lee, O.** (2007). Measuring instructional congruence in elementary science classrooms: Pedagogical and methodological components of a theoretical framework. *Journal of Research in Science Teaching*, 44(3), 424-447. <https://doi.org/10.1002/tea.20127>

43. Shaver, A., Cuevas, P., **Lee, O.**, & Avalos, M. (2007). Teachers' perceptions of policy influences on science instruction with culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching*, 44(5), 725-746. <https://doi.org/10.1002/tea.20151>
42. **Lee, O.**, Buxton, C. A., Lewis, S., & LeRoy, K. (2006). Science inquiry and student diversity: Enhanced abilities and continuing difficulties after an instructional intervention. *Journal of Research in Science Teaching*, 43(7), 607-636. <https://doi.org/10.1002/tea.20141>

Note: This article was selected by the National Science Teachers Association Committee on Research in Science Education as one of 10 articles from the past 10 years that teachers should read.

41. Lester, B. T., Ma, L., **Lee, O.**, & Lambert, J. (2006). Social activism in elementary science education: A science, technology, and society approach to teach global warming. *International Journal of Science Education*, 28(4), 315-339. <https://doi.org/10.1080/09500690500240100>
40. Cuevas, P., **Lee, O.**, Hart, J., & Deaktor, R. (2005). Improving science inquiry with elementary students of diverse backgrounds. *Journal of Research in Science Teaching*, 42(3), 337-357. <https://doi.org/10.1002/tea.20053>
39. **Lee, O.**, Deaktor, R. A., Hart, J. E., Cuevas, P., & Enders, C. (2005). An instructional intervention's impact on the science and literacy achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching*, 42(8), 857-887. <https://doi.org/10.1002/tea.20071>
38. **Lee, O.**, & Luykx, A. (2005). Dilemmas in scaling up innovations in elementary science instruction with nonmainstream students. *American Educational Research Journal*, 42(3), 411-438. <https://doi.org/10.3102%2F00028312042003411>
37. **Lee, O.** (2005). Science education with English language learners: Synthesis and research agenda. *Review of Educational Research*, 75(4), 491-530. <https://www.jstor.org/stable/3516105>
36. **Lee, O.** (2005). Science education and student diversity: Synthesis and research agenda. *Journal of Education for Students Placed at Risk*, 10(4), 431-440. https://doi.org/10.1207/s15327671espr1004_5
35. **Lee, O.**, Hart, J. E., Cuevas, P., & Enders, C. (2004). Professional development in inquiry-based science for elementary teachers of diverse student groups. *Journal of Research in Science Teaching*, 41(10), 1021-1043. <https://doi.org/10.1002/tea.20037>
34. **Lee, O.** (2004). Teacher change in beliefs and practices in science and literacy instruction with English language learners. *Journal of Research in Science Teaching*, 41(1), 65-93. <https://doi.org/10.1002/tea.10125>

33. Hart, J. E., & Lee, O. (2003). Teacher professional development to improve the science and literacy achievement of English language learners. *Bilingual Research Journal*, 27(3), 475-501. <https://doi.org/10.1080/15235882.2003.10162604>
32. Lee, O. (2003). Equity for linguistically and culturally diverse students in science education: A research agenda. *Teachers College Record*, 105(3), 465-489. https://www.researchgate.net/publication/220041070_Equity_for_Linguistically_and_Culturally_Diverse_Students_in_Science_Education_A_Research_Agenda
31. Lee, O., & Avalos, M. A. (2002). Promoting science instruction and assessment for English language learners. *The Electronic Journal of Science Education*, 7(2), 1-24.
30. Fradd, S. H., Lee, O., Sutman, F. X., & Saxton, M. K. (2001). Promoting science literacy with English language learners through instructional materials development: A case study. *Bilingual Research Journal*, 25(4), 479-501. <https://doi.org/10.1080/15235882.2001.11074464>
29. Thurmond, C. K., & Lee, O. (2000). Perception of scientific literacy and elementary teacher preparation held by science professors and science education professors. *Florida Journal of Educational Research*, 40(1), 5-27. <https://eraonline.org/fjer/2758/>
28. Lee, O., & Paik, S.-H. (2000). Conceptions of science achievement in major reform documents. *School Science and Mathematics*, 100(1), 16-26. <http://dx.doi.org/10.1111/j.1949-8594.2000.tb17316.x>
27. Paik, S.-H., & Lee, O. (1999). Science achievement: Synthesis of current conceptions in major reform documents in the United States and Korea. *Elementary Science Education (South Korea)*, 18(2), 1-19.
26. Westby, C., Dezale, J., Fradd, S. H., & Lee, O. (1999). Learning to do science: Influences of culture and language. *Communication Disorders Quarterly*, 21(1), 50-64. <https://doi.org/10.1177%2F152574019902100107>
25. Lee, O. (1999). Science knowledge, world views, and information sources in social and cultural contexts: Making sense after a natural disaster. *American Educational Research Journal*, 36(2), 187-219. <https://doi.org/10.3102%2F00028312036002187>
24. Lee, O. (1999). Equity implications based on the conceptions of science achievement in major reform documents. *Review of Educational Research*, 69(1), 83-115. <https://doi.org/10.3102%2F00346543069001083>
23. Fradd, S. H., & Lee, O. (1999). Teachers' roles in promoting science inquiry with students from diverse language backgrounds. *Educational Researcher*, 28(6), 14-20, 42. <https://doi.org/10.3102%2F0013189X028006014>

22. Paik, S.-H., & Lee, O. (1998). Analysis of the conceptions of science achievement in major reform documents in the United States and Korea. *Journal of the Korean Association for Research in Science Education*, 18(4), 571-587.
21. Fradd, S. H., & Lee, O. (1998). Development of a knowledge base for ESOL teacher education. *Teaching and Teacher Education*, 14(7), 761-773. <https://cte.ku.edu/sites/cte.ku.edu/files/docs/portfolios/thomas/Fradd%20and%20Lee%201998.%20DEVELOPMENT%20OF%20A%20KNOWLEDGE%20BASE%20FOR%20ESOL.pdf>
20. Lee, O., & Fradd, S. H. (1998). Science for all, including students from non-English-language backgrounds. *Educational Researcher*, 27(4), 12-21. <https://doi.org/10.3102%2F0013189X027004012>
19. Lee, O. (1997). Diversity and equity for Asian American students in science education. *Science Education*, 81(1), 107-122. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/%28SICI%291098-237X%28199701%2981%3A1%3C107%3A%3AAID-SCE6%3E3.0.CO%3B2-M>
18. Fradd, S. H., Lee, O., Cabrera, P., del Rio, V., Leth, A., Morin, R., . . . Mathieu, T. (1997). School-university partnership to promote science with students learning English. *TESOL Journal*, 7, 35-40.
17. Fradd, S. H., & Lee, O. (1997). Teachers' voices in program evaluation and improvement: A case study of a TESOL program. *Teaching and Teacher Education*, 13(6), 563-577. [https://doi.org/10.1016/S0742-051X\(97\)80001-7](https://doi.org/10.1016/S0742-051X(97)80001-7)
16. Anderson, C. W., & Lee, O. (1997). Task engagement and conceptual change in science classrooms: Will students take advantage of opportunities for meaningful science learning? *Phi Delta Kappan*, 78, 720-724.
15. Brett, A., Lee, O., & Sorhaindo, L. (1997). Effect of field-based technology laboratory on preservice teachers' knowledge, attitudes, and infusion of technology. *Florida Journal of Educational Research*, 37(1), 1-16.
14. Lee, O., & Fradd, S. H. (1996). The interplay among language, science knowledge, and cognitive strategy use with linguistically diverse students. *Journal of the New York State Association for Bilingual Education*, 11, 26-45.
13. Lee, O., & Fradd, S. H. (1996). Interactional patterns of linguistically diverse students and teachers: Insights for promoting science learning. *Linguistics and Education*, 8(3), 269-297. [https://doi.org/10.1016/S0898-5898\(96\)90024-8](https://doi.org/10.1016/S0898-5898(96)90024-8)
12. Lee, O., & Fradd, S. H. (1996). Literacy skills in science learning among linguistically diverse students. *Science Education*, 80(6), 651-671. [https://doi.org/10.1002/\(SICI\)1098-237X\(199611\)80:6%3C651::AID-SCE2%3E3.0.CO;2-I](https://doi.org/10.1002/(SICI)1098-237X(199611)80:6%3C651::AID-SCE2%3E3.0.CO;2-I)

11. **Lee, O.**, & Brophy, J. (1996). Motivational patterns observed in sixth-grade science classrooms. *Journal of Research in Science Teaching*, 33(3), 303-318. [https://doi.org/10.1002/\(SICI\)1098-2736\(199603\)33:3%3C303::AID-TEA4%3E3.0.CO;2-X](https://doi.org/10.1002/(SICI)1098-2736(199603)33:3%3C303::AID-TEA4%3E3.0.CO;2-X)
10. **Lee, O.**, Fradd, S. H., & Sutman, F. X. (1995). Science knowledge and cognitive strategy use among culturally and linguistically diverse students. *Journal of Research in Science Teaching*, 32(8), 797-816. <https://doi.org/10.1002/tea.3660320804>
9. Fradd, S., & **Lee, O.** (1995). Science for all: A promise or a pipe dream for bilingual students? *Bilingual Research Journal*, 19(2), 261-278. <https://doi.org/10.1080/15235882.1995.10668605>
8. **Lee, O.** (1995). Subject matter knowledge, classroom management, and instructional practices in middle school science classrooms. *Journal of Research in Science Teaching*, 32(4), 423-440. <https://doi.org/10.1002/tea.3660320409>
7. Fradd, S. H., Burns-Hoffman, R., **Lee, O.**, & Evelyn, V. (1994). Action research and the professional development of ESOL teachers. *Gulf TESOL Journal*, 9, 23-28.
6. **Lee, O.**, & Anderson, C. W. (1993). Task engagement and conceptual change in middle school science classrooms. *American Educational Research Journal*, 30(3), 585-610. <https://doi.org/10.3102%2F00028312030003585>
5. **Lee, O.**, & Porter, A. C. (1993). A teacher's bounded rationality in middle school science. *Teaching and Teacher Education*, 9(4), 397-409. [https://doi.org/10.1016/0742-051X\(93\)90006-3](https://doi.org/10.1016/0742-051X(93)90006-3)
4. **Lee, O.**, Eichinger, D., Anderson, C., Berkheimer, G., & Blakeslee, T. D. (1993). Changing middle school students' conceptions of matter and molecules. *Journal of Research in Science Teaching*, 30(3), 249-270. <https://doi.org/10.1002/TEA.3660300304>
3. McIntosh, R., Vaughn, S., Schumm J. S., Haager, D., & **Lee, O.** (1993). Observations of students with learning disabilities in general education classrooms: You don't bother me and I won't bother you. *Exceptional Children*, 60(3), 249-261. <http://dx.doi.org/10.1177/001440299406000306>
2. Contreras, A., & **Lee, O.** (1990). Differential treatment of students by middle school science teachers: Unintended cultural bias. *Science Education*, 74(4), 433-444. <https://doi.org/10.1002/sce.3730740404>
1. **Lee, O.**, & Porter, A. C. (1990). Bounded rationality in classroom teaching. *Educational Psychologist*, 25(2), 159-171. https://psycnet.apa.org/doi/10.1207/s15326985ep2502_4

BOOKS

5. Nordine, J., & **Lee, O.** (Eds.). (2021). *Crosscutting concepts: Strengthening science and engineering learning*. National Science Teaching Association.

4. **Lee, O.**, Miller, E., & Januszyk, R. (Eds.). (2015). *NGSS for all students*. National Science Teachers Association.

Note: This book was supported by the Next Generation Science Standards at Achieve, Inc. and was a 2016 REVERE Awards finalist.

3. Bianchini, J. A., Akerson, V. L., Calabrese Barton, A., **Lee, O.**, & Rodriguez, A. J. (Eds.). (2012). *Moving the equity agenda forward: Equity research, practice, and policy in science education*. Springer.

Note: This book was supported by the National Association for Research in Science Teaching.

2. **Lee, O.**, & Buxton, C. A. (2010). *Diversity and equity in science education: Theory, research, and practice*. Teachers College Press.

Note: This book was part of the *Multicultural Education Series* edited by James A. Banks.

Reviews:

Bannier, B. J. (2015). *Cultural Studies of Science Education*, 10, 545-549.

Feinstein, H. (2011). *Science Education*, 95(3), 571-573.

Riendeau, D. (2011). *International Journal of Multicultural Education*, 13(1).

Wellik, J. (2011). *National Science Teachers Association* (January 24).

Monhardt, R. (2010). *Teachers College Record* (September 13).

1. **Lee, O.**, & Luykx, A. (2006). *Science education and student diversity: Synthesis and research agenda*. Cambridge University Press.

Note: This book was supported by the Center for Research on Education, Diversity, and Excellence and the National Center for Improving Student Learning and Achievement in Mathematics and Science.

Review: Bianchini, J. (2007). *Science Education*, 91(3), 518-521.

HANDBOOK CHAPTERS

5. Buxton, C. A., & **Lee, O.** (in press). Section on diversity and equity in science education. In N. G. Lederman, D. Zeidler, & J. Lederman (Eds.), *Handbook of research in science education* (3rd ed.). Routledge.

4. Buxton, C. A., & Lee, O. (2014). English language learners in science education. In N. G. Lederman & S. K. Abell (Eds.), *Handbook of research in science education* (2nd ed., pp. 204-222). Erlbaum.
3. Lee, O., & Luykx, A. (2007). Science education and student diversity: Race/ethnicity, language, culture, and socioeconomic status. In S. K. Abell & N. G. Lederman (Eds.), *Handbook of research in science education* (1st ed., pp. 171-197). Erlbaum.
2. Lee, O. (2002). Science inquiry for elementary students from diverse backgrounds. In W. G. Secada (Ed.), *Review of research in education* (Vol. 26, pp. 23-69). American Educational Research Association.
1. Lee, O., & Yarger, S. J. (1996). Modes of inquiry in research on teacher education. In J. Sikula, T. J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education* (2nd ed., pp. 14-37). Macmillan.

BOOK CHAPTERS

30. Nordine, J., & Lee, O. (2021). What are crosscutting concepts and why are they useful? In J. Nordine & O. Lee (Eds.), *Crosscutting concepts: Strengthening science and engineering learning* (pp. 3-17). National Science Teaching Association.
29. Goggins, M., Haas, A., Grapin, S. E., Januszyk, R., Llosa, L., & Lee, O. (2021). Broadening access to science: Crosscutting concepts as resources in the NGSS classroom. In J. Nordine & O. Lee (Eds.), *Crosscutting concepts: Strengthening science and engineering learning* (pp. 43-59). National Science Teaching Association.
28. Nordine, J., Lee, O., & Willard, T. (2021). Conclusions. In J. Nordine & O. Lee (Eds.), *Crosscutting concepts: Strengthening science and engineering learning* (pp. 377-380). National Science Teaching Association.
27. Lee, O., Goggins, M., Haas, A., Januszyk, R., Llosa, L., & Grapin, S. E. (2019). Making everyday phenomena phenomenal: Next Generation Science Standards-aligned instructional materials using local phenomena with diverse student groups. In P. Spycher & E. Haynes (Eds.), *Culturally and linguistically diverse learners and STEAM: Teachers and researchers working in partnership to build a better tomorrow* (pp. 211-228). Information Age Publishing.
26. Lee, O., Grapin, S. E., & Haas, A. (2018). How science instructional shifts and language instructional shifts support each other for English learners: Talk in the science classroom. In A. Bailey, C. Maher, & L. Wilkinson (Eds.), *Language, literacy and learning in the STEM disciplines: How language counts for English learners* (pp. 35-52). Routledge.
25. Lee, O., O'Connor, C., & Haas, A. (2017). Promoting science among English language learners (P-SELL) model: Curricular and professional development intervention in elementary science instruction with a focus on English language learners. In C. A. Buxton & M. Alleksaht-Snyder (Eds.), *Teaching science to English learners: Research into practice* (pp. 15-30). Springer.

24. Maerten-Rivera, J., Llosa, L., & Lee, O. (2017). Promoting science among English language learners (P-SELL) research and evaluation: Measures and outcomes with students and teachers. In C. A. Buxton & M. Alleksaht-Snyder (Eds.), *Teaching science to English learners: Research into practice* (pp. 31-51). Springer.
23. Lee, O., & Miller, E. (2016). Engaging in phenomena from project-based learning in a place-based context in science. In L. C. de Oliveira (Ed.), *The Common Core State Standards in literacy in history/social studies, science, and technical subjects for English language learners: Grades 6-12* (pp. 59-73). Teaching English to Speakers of Other Languages.
22. Lee, O. (2015). Preface. In O. Lee, E. Miller, & R. Januszyk (Eds.), *NGSS for all students* (pp. xi-xiv). National Science Teachers Association.
21. Lee, O., Miller, E., & Januszyk, R. (2015). Conceptual framework guiding the NGSS diversity and equity. In O. Lee, E. Miller, & R. Januszyk (Eds.), *NGSS for all students* (pp. 37-42). National Science Teachers Association.
20. Januszyk, R., Lee, O., & Miller, E. (2015). Charges of the NGSS diversity and equity team. In O. Lee, E. Miller, & R. Januszyk (Eds.), *NGSS for all students* (pp. 29-35). National Science Teachers Association.
19. Miller, E., Januszyk, R., & Lee, O. (2015). Using the case studies to inform unit design. In O. Lee, E. Miller, & R. Januszyk (Eds.), *NGSS for all students* (pp. 171-177). National Science Teachers Association.
18. Miller, E., Januszyk, R., & Lee, O. (2015). Case study utility for classroom teaching and professional development. In O. Lee, E. Miller, & R. Januszyk (Eds.), *NGSS for all students* (pp. 193-202). National Science Teachers Association.
17. Lee, O. (2014). Diversity and equity in science education. In R. Slavin (Ed.), *Proven programs in education: Science, technology, engineering, and mathematics* (pp. 98-102). Corwin.
16. Lee, O. (2012). Teaching science with English language and literacy. In M. Calderón (Ed.), *Breaking through: Effective instruction and assessment for reaching English learners* (pp. 129-142). Solution Tree Press.
15. Lee, O., Santau, A. O., & Maerten-Rivera, J. (2011). Science and literacy assessments with English language learners. In C. Basterra, E. Trumbull, & G. Solano-Flores (Eds.), *Cultural validity in assessment: Addressing linguistic and cultural diversity* (pp. 254-274). Routledge.
14. Buxton, C. A., & Lee, O. (2010). Fostering scientific reasoning as a strategy to support science learning for English language learners. In D. Senal, C. Senal, & E. Wright (Eds.),

- Teaching science with Hispanic ELLs in K-16 classrooms* (pp. 11-36). Information Age Publishing.
13. LeRoy, K., & Lee, O. (2008). What research says about science assessment with English language learners. In J. Coffey, R. Douglas, & C. Sterns (Eds.), *Science assessment: Research and practical approaches* (pp. 341-355). National Science Teachers Association.
 12. García, E. E., & Lee, O. (2008). Science instruction for all: Creating a responsive learning community. In A. S. Rosebery & B. Warren (Eds.), *Teaching science to English language learners: Building on students' strengths* (pp. 151-161). National Science Teachers Association.
 11. Lambert, J., Lester, B., Lee, O., & Luykx, A. (2007). An earth systems inquiry-based approach reshapes teachers' beliefs about instruction of diverse students. In D. B. Zandvliet (Ed.), *Sustainable communities, sustainable environments* (pp. 97-114). Sense Publishers.
 10. Lee, O. (2007). Implementation and evaluation of scale-up. In B. Schneider & S. McDonald (Eds.), *Scale up in education: Issues in practice* (Vol. 2, pp. 123-127). Rowman & Littlefield.
 9. Lee, O. (2006). Embracing serendipity and celebrating diversity. In K. Tobin & W.-M. Roth (Eds.), *The culture of science education* (pp. 251-261). Sense Publishers.
 8. Colucci, M., Ceballos, M., Smith, M., & Lee, O. (2006). Wind cycle. In A. K. Fathman & D. T. Crowther (Eds.), *Science for English language learners: K-12 classroom strategies* (pp. 127-129). National Science Teachers Association.
 7. Luykx, A., Cuevas, P., Lambert, J., & Lee, O. (2005). Unpacking teachers' "resistance" to integrating students' language and culture into elementary science instruction. In A. Rodríguez & R. S. Kitchen (Eds.), *Preparing prospective mathematics and science teachers to teach for diversity: Promising strategies for transformative action* (pp. 119-141). Erlbaum.
 6. Bessell, A. G., Schumm, J. S., Lee, O., Liftin, E., & Walsh, S. (2003). Beyond standardized test scores: Using case studies to evaluate a reform strategy. In *Research perspectives on school reform: Lessons from the Annenberg Challenge* (pp. 117-132). Annenberg Institute for School Reform at Brown University.
 5. Lee, O., & Fradd, S. H. (2001). Instructional congruence to promote science learning and literacy development for linguistically diverse students. In D. R. Lavoie & W.-M. Roth (Eds.), *Models for science teacher preparation: Bridging the gap between research and practice* (pp. 109-126). Kluwer Academic Publishers.
 4. Fradd, S. H., & Lee, O. (2000). Needed: A framework for integrating standardized and informal assessment for students developing academic language proficiency in English.

- In J. V. Tenajero & S. Hurley (Eds.), *Literacy assessment of bilingual learners* (pp. 130-148). Allyn and Bacon.
3. **Lee, O.** (1996). Children's science conceptions and worldviews in social and cultural contexts: Making sense after Hurricane Andrew. In S. Sayre & D. Horne (Eds.), *Earth, wind, fire and water: Approaching natural disaster* (pp. 197-221). Open Door Publishers.
 2. Yarger, S. J., & **Lee, O.** (1994). Teachers as leaders: The development and sustenance of teacher leadership. In D. R. Walling (Ed.), *Teachers as leaders: Perspectives on the professional development of teachers* (pp. 223-237). Phi Delta Kappan Educational Foundation.
 1. **Lee, O.**, & Salwen, M. B. (1994). *New York Times'* coverage of education reform during the 1950s and 1980s. In P. Farber, E. F. Provenzo, Jr., & G. Holm (Eds.), *Education in the light of popular culture* (pp. 131-148). State University of New York Press.

EDITORIALS AND INVITED JOURNAL ARTICLES

41. **Lee, O.**, Shelton, T., & Grapin, S. E. (XXX). *Future approaches in STEM education*. National Science Teaching Association. <https://www.nsta.org/blog/future-approaches-stem-education>
40. **Lee, O.**, Shelton, T., & Soriano, K. (2022, June 17). *Contemporary approaches in science education with all students*, National Science Teaching Association. <https://www.nsta.org/blog/contemporary-approaches-science-education-all-students>
39. Grapin, S. E., Haas, A., Rasmussen, E., & **Lee, O.** (2022) Integrating science, language, and computational thinking with multilingual learners. National Science Teaching Association. <https://www.nsta.org/blog/integrating-science-language-and-computational-thinking-multilingual-learners>
38. Ocol, T., Borman, G., & **Lee, O.** (in press). Integrating science and language with multilingual learners through consensus among policy, research, and practice. *Impact On Instructional Improvement*: New York State Association of Supervision and Curriculum Development.
37. Borman, G., Ocol, T., & **Lee, O.** (in press). New York State P-12 Science Learning Standards: Student agency and equity as core of contemporary science education with all students. *Impact On Instructional Improvement*: New York State Association of Supervision and Curriculum Development.
36. Borman, G., Ocol, T., & **Lee, O.** (2022, June 10). *New York City Department of Education takes a systems approach to science education with multilingual learners*. National Science Teaching Association. <https://www.nsta.org/blog/new-york-city-department-education-takes-systems-approach-science-education-multilingual>
35. **Lee, O.** (2022, February 24). Policy advocacy for science teaching workforce. *Developing and supporting a strong, diverse science teaching workforce*. National

- Science Teaching Association. https://www.nsta.org/blog/developing-and-supporting-strong-diverse-science-teaching-workforce?utm_medium=email&utm_source=rasa_io
34. Campbell, D. T., & Lee, O. (2021). Instructional materials designed for *A Framework for K-12 Science Education* and the Next Generation Science Standards: An introduction to the special issue. *Journal of Science Teacher Education*, 32(7), 727-734. <https://www.tandfonline.com/doi/full/10.1080/1046560X.2021.1975359>
 33. Haas, A., Januszyk, R., Grapin, S. E., Llosa, L., & Lee, O. (2021). Yearlong fifth-grade science curriculum for all students, including English learners. *California Classroom Science: A Publication of the California Association of Science Educators*. <https://classroomscience.org/articles/fyi/yearlong-fifth-grade-science-curriculum-all-students-including-english-learners-free-download>
 32. Lee, O. (2021). Integration of science and language with a focus on multilingual learners: Shared opportunities and responsibilities. *NYS TESOL Journal*, 8(1), 3-14. http://journal.nystesol.org/Vol8No1/3_Keynote.pdf
 31. Lee, O. (2021). Commentary on the special issue, systems for systems: Computational systems modeling to promote equity and access in K-12 STEM educational systems. *Systems*, 9(2), 30. <https://doi.org/10.3390/systems9020030>
 30. Campbell, D. T., & Lee, O. (2021, February 23). Teaching science to address societally pressing phenomena and challenges. *PBS Thinkalong Blog*. <https://thinkalong.org/teaching-science-to-address-pressing-phenomena/>
 29. Lee, O., & Campbell, D. T. (2021). How can STEM disciplines and STEM education work in concert to address systemic racism and the COVID-19 pandemic? Creating a new normal for STEM education. *American Association for the Advancement of Science ARISE Blog*. <https://aaas-arise.org/2021/01/26/how-can-stem-disciplines-and-stem-education-work-in-concert-to-address-systemic-racism-and-the-covid-19-pandemic-creating-a-new-normal-for-stem-education/>
 28. Lee, O. (2020, August 27). Making everyday phenomena phenomenal. *National Science Teaching Association Blog*. <https://www.nsta.org/blog/local-phenomena>
 27. Lee, O. (2019, March 21). Contemporary instructional approaches to promote STEM learning for English learners. *National Science Teaching Association Blog*. <http://nstacommunities.org/blog/2019/03/21/contemporary-instructional-approaches-to-promote-stem-learning-for-english-learners/>
 26. Lee, O. (2019, January 8). English learners in STEM subjects. *National Science Teaching Association Blog*. <http://blog.nsta.org/2019/01/08/english-learners-in-stem-subjects/>
 25. Haas, A., Goggins, M., Grapin, S. E., Llosa, L., & Lee, O. (2018, October 7). Integrating computational thinking and modeling into science instruction. *National Science Teaching*

- Association Blog*. <http://nstacomunities.org/blog/2018/10/07/integrating-computational-thinking-and-modeling-into-science-instruction/>
24. **Lee, O.** (2018, January 16). *How children learn science? At a glance, news from the Steinhardt School of Culture, Education, and Human Development*. nyu.edu/site/ataglance/2018/01/okhee-lee-how-students-learn-science.html
 23. **Lee, O.** (2017, July 25). How NGSS and CCSS for ELA/literacy address argument. *National Science Teaching Association Blog*. <http://nstacomunities.org/blog/2017/07/25/how-ngss-and-ccss-for-elaliteracy-address-argument/>
 22. **Lee, O.** (2017, March 17). *Embracing new ways of teaching science and language with English learners*. <https://www.educationdive.com/news/embracing-new-ways-of-teaching-science-and-language-with-english-learners/438251/>
 21. Llosa, L., Kieffer, M. J., & **Lee, O.** (2016). *How can educational systems better serve English learners?* New York University Education Solution Initiative.
 20. **Lee, O.** (2015, May 20). NGSS for all students. *National Science Teaching Association Blog*. <http://nstacomunities.org/blog/2015/05/20/ngss-for-all-students/>
 19. **Lee, O.**, & Llosa, L. (2015). How is the term academic language helpful? How is it imprecise? In G. Valdés, K. Menken, & M. Castro (Eds.), *Common Core bilingual and English language learners: A resource for educators* (pp. 54-55). Caslon Publishing.
 18. **Lee, O.**, & Llosa, L. (2015). What are the language demands for science in the Next Generation Science Standards? In G. Valdés, K. Menken, & M. Castro (Eds.), *Common Core bilingual and English language learners: A resource for educators* (pp. 164-165). Caslon Publishing.
 17. **Lee, O.**, Diaz, J., & Maerten-Rivera, J. (2014). Results from the promoting science among English language learners (P-SELL) project. *The FAST Journal: Florida Association of Science Teachers, Spring*, 17-18.
 16. **Lee, O.** (2013). Science and technology, teacher preparation for diversity. In J. A. Banks (Ed.), *Encyclopedia of diversity in education* (Vol. 4, pp. 1904-1907). Sage.
 15. Buxton, C. A., & **Lee, O.** (2013). Introduction to theme issue on diversity and equity in science education. *Theory Into Practice*, 52(1), 1-5.
 14. **Lee, O.**, & Krajcik, J. (2012). Large-scale interventions in science education for diverse student groups in varied educational settings. *Journal of Research in Science Teaching*, 49(3), 271-281.
 13. **Lee, O.**, & Bianchini, J. (2012). Part I introduction: Science education policy. In J. A. Bianchini, V. L. Akerson, A. Calabrese Barton, O. Lee, & A. J. Rodriguez (Eds.), *Moving*

- the equity agenda forward: Equity research, practice, and policy in science education* (pp. 1-3). Springer.
12. Rodriguez, A. J., & Lee, O. (2012). Part III introduction: Context and culture. In J. A. Bianchini, V. L. Akerson, A. Calabrese Barton, O. Lee, & A. J. Rodriguez (Eds.), *Moving the equity agenda forward: Equity research, practice, and policy in science education* (pp. 127-129). Springer.
 11. Lee, O., & Buxton, C. A. (2010, April). Teaching science to English language learners. *NSTA Reports!* <http://www.nsta.org>
 10. Buxton, C. A., Lee, O., & Penfield, R. D. (2009/2010). Developing English literacy through science instruction. *The International Journal of Foreign Language Teaching*, 5(2), 11-14.
 9. Buxton, C. A., & Lee, O. (2007). Bridging the divide between curriculum theory and practice for non-mainstream students in science education. *Journal of Curriculum and Pedagogy*, 4(1), 39-44.
 8. Fraser-Abder, P., Atwater, M., & Lee, O. (2006). Research in urban science education: An essential journey. *Journal of Research in Science Teaching*, 43(7), 599-606.
 7. Calabrese Barton, A., & Lee, O. (2006). NARST equity and ethics committee: A call to action. *Journal of Research in Science Teaching*, 43(9), 875-878.
 6. Lee, O., & Luykx, A. (2003). Ecological education for students from non-mainstream backgrounds in the climate of accountability. *Frontiers in Ecology and the Environment*, 1(7), 384-385.
 5. Lee, O., & Avalos, M. (2003). Integrating science with English language development. *Southwest Educational Development Laboratory Letter*, XV(1), 21-28.
 4. Bessell, A. G., Sinagub, J. M., Lee, O., & Schumm, J. S. (2003). Engaging families with technology: South Florida's FamilyTech Program increases parental involvement, student success. *T.H.E. Journal*, 31(5), 7, 10-13.
 3. Lee, O. (2001). Culture and language in science education: What do we know and what do we need to know? *Journal of Research in Science Teaching*, 38(5), 499-501.
 2. Lee, O. (1997). Scientific literacy for all. *Journal of Research in Science Teaching*, 34, 219-222.
 1. Lee, O. (1991). Author's response to Finkel's criticism. *Science Education*, 75(4), 491-492.

BRIEFS AND MONOGRAPHS

8. Guzman-Orth, D., Supalo, C., Smith, D., **Lee, O.**, & King, T. (2020). *Equitable STEM instruction and assessment: Accessibility and fairness considerations for special populations* (ETS Research Report Series No. ETS RR-21-11). <http://doi.org/10.1002/ets2.12324>
7. Bell, P., Suárez, E., Buxton, C. A., Morrison, D., Rodriguez, A., **Lee, O.**, Bang, M., Tzou, C., & Tesoriero, G. (2018). *OpenSciEd design specifications for equitable science instruction for all students*. <https://tinyurl.com/OpenSciEd-Equity-Specs>
6. Quinn, H., **Lee, O.**, & Valdés, G. (2012). *Language demands and opportunities in relation to Next Generation Science Standards for English language learners: What teachers need to know*. Stanford University Understanding Language Initiative.
5. **Lee, O.** (2007). *Science achievement gaps: Race/ethnicity, culture, and socioeconomic status*. RMC Research Corporation's Center on Instruction and U.S. Department of Education.
4. **Lee, O.** (1998). *Current conceptions of science achievement in major reform documents and implications for equity and assessment*. University of Wisconsin-Madison and National Institute for Science Education.
3. Fradd, S. H., & **Lee, O.** (Eds.). (1998). *Creating Florida's multilingual work force: Policies and practices for instruction and assessment of English language learners*. Florida Department of Education Office of Multicultural Student Language Education.
2. **Lee, O.** (1998). Science instruction and assessment for English language learners in the state of Florida. In S. H. Fradd & O. Lee (Eds.), *Creating Florida's multilingual work force: Policies and practices for instruction and assessment of English language learners* (pp. v, 1-11). Florida Department of Education Office of Multicultural Student Language Education.
1. **Lee, O.**, Eichinger, D., Anderson, C. W., Berkheimer, G. D., & Blakeslee, T. C. (1990). *Changing middle school students' conceptions of matter and molecules*. Michigan State University Institute for Research on Teaching.

COMMITTEE DOCUMENTS

9. National Science Foundation Broadening Participation Subcommittee of the Advisory Committee for the Education and Human Resources Directorate. (2021). *An Education and Human Resources Directorate prototype for identifying common metrics for monitoring broadening participation in National Science Foundation programs*. National Science Foundation.

Note: As chair of the subcommittee, I led the development of this report.

8. National Academies of Sciences, Engineering, and Medicine. (2018). *English learners in STEM subjects: Transforming classrooms, schools, and lives*. National Academies Press.

7. **Lee, O.**, Miller, E., Januszyk, R., Okoro, B., O'Day, B., Gutierrez, J., & Jones, N. (2013). *All standards, all students: Making Next Generation Science Standards accessible to all students*. Achieve, Inc.

Note: As part of this project, I coauthored seven case studies focused on the following:

1. Economically disadvantaged students
 2. Students from marginalized racial and ethnic groups
 3. Students with disabilities
 4. English language learners
 5. Girls
 6. Students in alternative education
 7. Gifted and talented students
6. Next Generation Science Standards Lead States. (2013). *Next Generation Science Standards: For states, by states*. National Academies Press.
 5. Council of Chief State School Officers. (2012). *Framework for English Language Proficiency Development Standards corresponding to the Common Core State Standards and the Next Generation Science Standards*. Washington, DC: CCSSO.
 4. Deussen, T., Autio, E., Miller, B., Lockwood, A. T., & Stewart, V. (2008). *What teachers should know about instruction for English language learners: A report to Washington State*. Northwest Regional Educational Laboratory.
 3. Ballantyne, K. G., Sanderman, A. R., & Levy, J. (2008). *Educating English language learners: Building teacher capacity roundtable report*. National Clearinghouse for English Language Acquisition.
 2. National Research Council, Committee on Science Learning, Kindergarten Through Eighth Grade. (2007). *Taking science to school: Learning and teaching science in grades K-8*. National Academies Press.
 1. Lynch, S., Atwater, M., Cawley, J., Eccles, J., **Lee, O.**, Marrett, C., . . . Willetto, A. (1996). *An equity blueprint for Project 2061 science education reform*. American Association for the Advancement of Science Project 2061.

RESOURCES FOR NEW YORK STATE EDUCATION DEPARTMENT

Integrating Science and Language for All Students With a Focus on English Language Learners.

<http://www.nysed.gov/bilingual-ed/news/integrating-science-and-language-all-students-focus-english-language-learners>

<http://www.nysed.gov/bilingual-ed/integrating-science-and-language-all-students-focus-english-language-learners>

Resources include an introduction and seven sets of webinars and briefs (2021):

1. Introduction
2. Unpacking the New York State P-12 Science Learning Standards
3. Science and language with English language learners
4. Science instructional shifts
5. Language instructional shifts
6. A classroom example
7. Science and language assessment shifts
8. Formative assessment in the science classroom

Kang, E., Ocol, T., Bauler, C., & Lee, O. (2022). *CTLE professional development series: Integrating science and language for all students with a focus on English language learners*. Collaboration among Adelphi University, New York City Department of Education, and New York University. <https://sites.google.com/schools.nyc.gov/nysed-ctle-integrating-science/home>

RESOURCES FOR NATIONAL SCIENCE TEACHING ASSOCIATION

NSTA playlists:

8. Tracking COVID-19 in the United States
<https://www.nsta.org/playlist/tracking-covid-19-united-states>
7. Computational modeling of COVID-19
<https://www.nsta.org/playlist/understanding-covid-19-disparities-using-computational-modeling>
6. Computational thinking and modeling
<https://www.nsta.org/playlist/computational-thinking-and-modeling>
5. How do ants help the plants and animals of the woods?
<https://www.nsta.org/playlist/how-do-ants-help-plants-and-animals-woods>
4. How do fireflies see the light?
<https://www.nsta.org/playlist/how-do-fireflies-see-light>
3. How were the Scablands formed?
<https://www.nsta.org/playlist/how-were-channeled-scablands-formed>
2. What happens to our garbage?
<https://www.nsta.org/playlist/what-happens-our-garbage>
1. Lee, S., Russell, J., Lee, O., & Campbell, T. (2021). *What is a problem you want to design solutions for? What is a problem you see in your community that you want to design solutions for? What would you make?* <https://www.nsta.org/lesson-plan/what-problem-you-want-design-solutions>

CURRICULUM DEVELOPMENT

7. SAIL Research Lab. (2020). *Science and integrated language plus computational thinking and modeling (SAIL+CTM): A yearlong fifth-grade science curriculum aligned to the Next Generation Science Standards with a focus on English learners that integrates computation thinking and modeling*. New York University. <https://www.nyusail.org>

6. SAIL Research Lab. (2019). *Science and integrated language (SAIL): A yearlong fifth-grade science curriculum aligned to the Next Generation Science Standards with a focus on English learners*. New York University. <https://www.nyusail.org>

Note: Achieve, Inc. awarded *Grade 5: SAIL Garbage Unit* the NGSS Design Badge, which is the highest rating for NGSS-aligned curriculum units, <https://www.nextgenscience.org/resources/grade-5-sail-garbage-unit>

5. **Lee, O.**, and others. (2013). *Promoting science among English language learners (P-SELL) science 5th grade* (student book and teacher guide). New York University (a comprehensive, stand-alone, year-long science curriculum for fifth grade).
4. Buxton, C. A., Cone, N., Oddone, S., & **Lee, O.** (2009). *Promoting science among English language learners (P-SELL) in middle school science* (student book and teacher guide). University of Miami.
3. **Lee, O.**, Buxton, C. A., LeRoy, K., & Secada, W. G. (2008). *Promoting science among English language learners* (student books and teacher guides). University of Miami. This is a series of nine science curriculum units for third, fourth, and fifth grade: *Measurement, States of Matter, Water Cycle and Weather, Energy, Force and Motion, Processes of Life, Nature of Matter, Earth Systems, and Synthesis*.
2. Berkheimer, G. D., Anderson, C. W., **Lee, O.**, & Blakeslee, T. C. with Eichinger, D., & Sands, K. (1988). *Matter and molecules teacher's guide: Science book* (Occasional Paper No. 121). Michigan State University Institute for Research on Teaching.
1. Berkheimer, G. D., Anderson, C. W., & Blakeslee, T. C. with **Lee, O.**, Eichinger, D., & Sands, K. (1988). *Matter and molecules teacher's guide: Activity book* (Occasional Paper No. 122). Michigan State University Institute for Research on Teaching.

CONFERENCE PROCEEDINGS

4. Rehmat, A. P., **Lee, O.**, Nordine, J., Novak, A., Osborne, J., & Willard, T. (2019). Modeling the role of crosscutting concepts for strengthening science learning of all students. In S. J. Fick, J., Nordine, & K. W. McElhaney (Eds.), *Proceedings of the summit for examining the potential for crosscutting concepts to support three-dimensional learning*. University of Virginia. <http://curry.virginia.edu/CCC-Summit>
3. **Lee, O.** (2000). *Equity for culturally and linguistically diverse students in science education: Recommendations for a research agenda*. An invited paper presented at the National Institute for Science Education Forum. The Forum was organized by the

National Institute for Science Education, Wisconsin Center for Education Research, and University of Wisconsin-Madison with funding from the National Science Foundation (Cooperative Agreement No. RED 9452971).

2. **Lee, O.** (1996). *Science teacher education for the 21st century in South Korea*. An invited speech presented at the 20th Anniversary of the Korean Association for Research in Science Education International Seminar and Workshop, Seoul, South Korea.
1. Burns-Hoffman, R., **Lee, O.**, & Fradd, S. H. (1995). Patterns of noun-phrase expression in hands-on instructional conversations in science. In D. MacLaughlin & M. Bernstein (Eds.), *Proceedings of the 19th annual Boston University conference on language development*. Cascadilla Press.

FOREWORDS AND ENDORSEMENTS

8. **Lee, O.** (2022). Endorsement of *How to Prepare for Kindergarten* by Gabriella S. Rajguru. The Paper House Publishing.
7. **Lee, O.** (2022). Endorsement of *Expanding Reading Comprehension in Grades 3-6* by Katherine A. Dougherty Stahl & Georgia Earnest García, Guilford Press.
6. **Lee, O.** (2017). Endorsement of *Language Power: Key Uses for Accessing Content* by Gottlieb and Castro, Corwin Press.
5. **Lee, O.** (2016). Foreword. In E. G. Lyon, S. Tolbert, J. Solís, T. Stoddart, & G. Bunch, *Secondary science teaching for English learners: Developing supportive and responsive learning contexts for sense-making and language development* (pp. vii-ix). Rowman & Littlefield.
4. **Lee, O.** (2015). Endorsement of *English Language Learners and the New Standards: Developing Language, Content Knowledge, and Analytical Practices in the Classroom* by Heritage, Walqui, and Linquanti, Harvard Educational Press.
3. **Lee, O.** (2008). Foreword. In K. R. Bruna & K. Gomez (Eds.), *Talking science, writing science: The work of language in multicultural classrooms* (pp. viii-xi). Taylor and Francis.
2. **Lee, O.** (2000). Foreword. In A. E. Sweeny & K. G. Tobin (Eds.), *Language, discourse, and learning in science: Improving professional practice through action research* (pp. 9-11). Southeastern Regional Vision for Education.
1. **Lee, O.** (2000). Foreword. In W. W. Cobern, *Everyday thoughts about nature: An interpretive study of 16 ninth graders' conceptualizations of nature* (pp. ix-x). Kluwer Academic Publishers.

BOOK REVIEWS

2. **Lee, O.** (1996). Review [Review of the book *The other side of the Asian American success story*, by W. Walker-Mofatt]. *World Communication*, 25(2), 106.

1. **Lee, O.** (1996). Review [Review of the book *Asian Americans: Contemporary trends and issues*, by P. G. Min]. *World Communication*, 25(2), 105.

FUNDED PROJECTS

2020-2024	Principal Investigator , Professional Development to Support an Elementary School Science and Integrated Language Curriculum (with Eric Banilower as Co-PI at Horizon Research, Inc. and Jessaca Spybrook as Co-PI at Western Michigan University). National Science Foundation Division of Discovery Research PreK-12 (\$3 million).
2021-2023	Principal Investigator . Developing Curriculum Aligned to the New York State P-12 Science Learning Standards That Integrates Science and Language Learning Across K-12. Mid-RBERN, New York (\$50,000).
2020-2023	Co-Principal Investigator , STEM Identities and K-Career Pathways of Immigrant Youth of Color (with Hua-Yu Sebastian Cherng as PI at New York University, Stella Flores and Sumie Okazaki as Co-PIs at New York University, and Amy Hsin as Co-PI at CUNY Queens College). National Science Foundation Division of Undergraduate Education (\$300,000).
2017-2022	Principal Investigator , Science and Integrated Language Plus Computational Thinking and Modeling With English Learners (with Eric Klopfer as Co-PI at Massachusetts Institute of Technology, Lorena Llosa as Co-PI at New York University, and Corey Brady as Co-PI at Vanderbilt University). National Science Foundation Division of Research on Learning (\$2.5 million).
2019-2021	Project Director , Supporting Statewide Leadership for Implementation of New York State P-12 Science Learning Standards With English Language Learners. New York State Education Department (\$45,000).
2015-2021	Principal Investigator , Development of Language-Focused Three-Dimensional Science Instructional Materials to Support English Language Learners in Fifth Grade (with Guadalupe Valdés as PI at Stanford University and Lorena Llosa as Co-PI at New York University). National Science Foundation Discovery Research K-12 (\$1.7 million to New York University and \$1.3 million to Stanford University, for a total of \$3 million).
2018-2019	Project Director , New York State Science Learning Standards With a Focus on ELLs Professional Learning Cycle. New York City Department of Education (\$15,000).
2017-2018	Co-Principal Investigator , Capitalizing on Aircraft Air and Noise Pollution: Transforming Deficits Into Assets (with Tae Hong Park as PI at New York University). Internal award from NYU (\$50,000).

- 2011-2017 **Principal Investigator**, Promoting Science Among English Language Learners (P-SELL): Scale-Up (with Lorena Llosa as Co-PI at New York University). National Science Foundation Discovery Research K-12 (\$4.5 million).
- 2009-2014 **Principal Investigator**, Promoting Science Among English Language Learners (P-SELL) Efficacy and Sustainability. U.S. Department of Education Institute of Education Sciences (\$3 million).
- 2004-2010 **Principal Investigator**, Promoting Science Among English Language Learners (P-SELL) in a High-Stakes Testing Policy Context (with Walter G. Secada as Co-PI at the University of Miami). National Science Foundation Teacher Professional Continuum Program (\$5.5 million).
- 2009 **Principal Investigator**, Promoting Science Among English Language Learners in Middle School. Carnegie Corporation of New York (\$49,700).
- 2008 **Project Director**, P-SELL Institute. Two private donations (\$50,000).
- 2000-2005 **Principal Investigator**, Instructional Intervention to Promote Science and Literacy With Linguistically Diverse Elementary Students (sub-contract to the University of California at Berkeley, Eugene García as Co-PI). National Science Foundation, U.S. Department of Education, and National Institutes of Health Interagency Education Research Initiative Program (\$2.5 million).
- 2003-2004 **Principal Investigator**, Science and Literacy in the Context of Students' Home Language and Culture. Sherman Fairchild Foundation (\$50,000).
- 1999-2004 **Co-Principal Investigator**, Evaluation of South Florida Annenberg Challenge (with Jeanne Schumm as PI at University of Miami). Annenberg Foundation (\$1,169,403).
- 2000-2003 **Principal Investigator**, Highly Effective USI Schools: An Outlier Study (sub-contract to the University of Miami from the Urban Institute, Beatriz Clewell as project PI). National Science Foundation Division of Research, Education, and Communication (\$150,000).
- 1998-2003 **Co-Principal Investigator and Project Evaluator**, Bilingual Beginnings for Teachers and Students—5th Year Program (with Sandra H. Fradd as PI followed by Mary Avalos at University of Miami). U.S. Department of Education Office of Bilingual and Minority Languages Affairs (\$975,394).
- 1998-2001 **Co-Principal Investigator and Project Evaluator**, Biliteracy for Beginning Teachers—1st Year Program (with Sandra H. Fradd as PI at

University of Miami). U.S. Department of Education Office of Bilingual and Minority Languages Affairs (\$671,425).

1997-2000 **Principal Investigator**, Science for All, Including Linguistically Diverse Students: Achieving the Promise (with Sandra H. Fradd as Co-PI at University of Miami). National Science Foundation Research in Education, Policy, and Practice Program (\$764,405).

1995-1999 **Project Director**, Secondary School Science and Mathematics Teacher Preparation Project (with Gilbert Cuevas as Co-PI at University of Miami). Eisenhower Funding for Florida Region 6 Higher Education Consortium Florida Department of Education.

Note: Funding was awarded based on annual competition:

1999:	\$18,500
1997-1998:	\$17,000
1996-1997:	\$30,000
1995-1996:	\$14,400

1997-1998 **Co-Principal Investigator**, Assessment and Instruction for Students Learning English: Policies and Practices (with Sandra H. Fradd as PI at University of Miami). Florida Department of Education Office of Multicultural Student Language Education (\$102,000).

1995-1998 **Co-Principal Investigator**, Promoting Science Literacy for All Americans, Including Culturally and Linguistically Diverse Students: Keeping the Promise (with Sandra H. Fradd as PI at University of Miami and Frank X. Sutman as Co-PI at Rollins College). National Science Foundation Research on Teaching and Learning Program (\$659,000).

1996-1997 **Fellow**, Current Conceptions of Science Achievement in Major Reform Documents and Implications for Equity. National Science Foundation (\$16,465).

1996-1997 **Principal Investigator**, Asian American Students: Social, Cultural, and Linguistic Influences on Academic Performance and Social Adjustment. University of Miami General Research Support Award (\$4,600).

1994-1996 **Co-Principal Investigator and Project Evaluator**, Master's ESOL Teacher Training (MET) Program (with Sandra H. Fradd as PI at University of Miami). U.S. Department of Education Office of Bilingual and Minority Languages Affairs (\$607,000).

1993-1995 **National Academy of Education Spencer Postdoctoral Fellow**, Children's Views of the World in Social and Cultural Contexts. National Academy of Education Spencer Postdoctoral Fellowship (\$35,000).

- 1993-1994 **Principal Investigator**, Children's Views of the World in Social and Cultural Contexts. University of Miami General Faculty Research Support Award (\$4,000).
- 1992-1993 **Co-Principal Investigator**, Linguistic Performance, Cognitive Strategies, and Science Knowledge of Non-English Background Students (with Sandra H. Fradd as PI at University of Miami). National Science Foundation Small Grant for Exploratory Research (\$50,000).
- 1992-1993 **Co-Project Director**, Teacher Enhancement in Physics and Chemistry Project (with Shepard Faber as PI at University of Miami). Florida Department of Education (\$100,000). (This project was conducted in collaboration with the Miami Museum of Science and Dade County Public Schools.)
- 1990-1993 **Co-Project Director**, Mathematics and Science Resource Teacher Project (with Gilbert Cuevas as PI at University of Miami). U.S. Department of Education National Eisenhower Mathematics and Science Program (\$414,000).
- 1991-1992 **Co-Project Director**, Teacher Improvement in Physical Science Project (with Shepard Faber as PI at University of Miami). Florida Department of Education (\$96,350). (This project was conducted in collaboration with the Miami Museum of Science and Dade County Public Schools.)
- 1991 **Commissioned Project**, Faculty Development for Effective Teaching (with Billy Birnie and Gilbert Cuevas at University of Miami). University of Miami School of Business Administration (\$6,500).

EDITORIAL BOARDS

- 2022-present *NYS TESOL Journal*
- 2015-present *Journal of Teacher Education*
- 2008-2022 *The Elementary School Journal*
- 2004-2013 *American Educational Research Journal*
- 1999-2011 *Review of Educational Research*
- 1992-2005 *Science Education*
- 1998-2001 *International Journal of Science Education*
- 1995-1999 *Journal of Research in Science Teaching*

EDITORSHIPS OF SPECIAL ISSUES AND HANDBOOK SECTIONS

- 2022 Lee, O. (2022). *Developing and supporting a strong, diverse science teaching workforce* [Special issue]. National Science Teaching Association. https://www.nsta.org/blog/developing-and-supporting-strong-diverse-science-teaching-workforce?utm_medium=email&utm_source=rasa_io
- 2020-2023 Buxton, C. A., & Lee, O. (2022). Section on diversity and equity in science education. In N. G. Lederman, D. Zeidler, & J. Lederman (Eds.), *Handbook of research in science education* (3rd ed.). Routledge.
- 2020-2021 Lee, O., & Campbell, D. T. (2021). Instructional materials aligned to *A Framework for K-12 Science Education* and the Next Generation Science Standards [Special issue]. *Journal of Science Teacher Education*, 32(7).
- 2020 Lee, O. (2020, August 27). *Local phenomena* [Special issue]. National Science Teaching Association. <https://www.nsta.org/blog/local-phenomena>
- 2011-2014 Buxton, C. A., & Lee, O. (2014). Section on diversity and equity in science education. In N. G. Lederman & S. K. Abell (Eds.), *Handbook of research in science education* (2nd ed.). Erlbaum.
- 2009-2013 Lee, O., & Buxton, C. A. (2013). Diversity and equity in science education [Special issue]. *Theory Into Practice*, 52(1).
- 2010-2012 Lee, O., & Krajcik, J. (2012). Large-scale interventions in science education for diverse student groups in varied educational settings [Special issue]. *Journal of Research in Science Teaching*, 49(3).
- 1999-2000 Lee, O., & Lynch, S. (2001). Language and culture in science education

COMMITTEES

NATIONAL

- 2023-2026 Selection Committee, National Academy of Education / Spencer Dissertation Fellowship Program
- 2023-2026 Fellows Committee, American Educational Research Association
- 2022-2023 National Assessment of Educational Progress (NAEP) Science Assessment Framework Steering Panel
- 2022-2023 Chair, Section Q Education Steering Group, American Association for the Advancement of Science

- 2022 Coordinator of “*Taking Stock of Science Standards Implementation: Proceedings of a Virtual Symposium*,” by the Board on Science Education, National Academies of Sciences, Engineering, and Medicine. National Academies Press.
- 2021-2022 Search Advisory Committee for the Assistant Director for Education and Human Resources, National Science Foundation
- 2019-2022 Member-at-Large, American Educational Research Association, Washington, DC
- 2019-2022 Distinguished Contribution to Science Education Research Award Committee, National Association for Research in Science Teaching
- 2016-2022 Advisory Committee for the Directorate of Education and Human Resources, National Science Foundation
- 2020-2021 Chair, Subcommittee on Broadening Participation, Advisory Committee for the Directorate of Education and Human Resources, National Science Foundation
- 2018-2021 Board of Trustees, Center for Applied Linguistics, Washington, DC
- 2019-2020 Co-Chair, Division K Legacy Award Committee, American Educational Research Association
- 2019-2020 Division C Early Career Award, American Educational Research Association
- 2019 Chair, Committee of Visitors to Review the Portfolio of the Division of Research on Learning in Formal and Informal Settings, National Science Foundation
- 2017-2018 Committee on Supporting English Learners in STEM Subjects, National Research Council
- 2015-2016 Chair, Division K Mid-Career Award Committee, American Educational Research Association
- 2015 National Conversation on Equity Through STEM, National Science Teachers Association
- 2012-2015 Advisory Committee on English Language Learners for Smarter Balanced Assessment Consortium
- 2011-2014 Steering Committee on Building on the Common Core State Standards Initiative to Improve Learning for English Language Learners (Kenji

Hakuta as PI; Kenji Hakuta and Maria Santos as Co-Chairs of Steering Committee), Stanford University, Stanford, CA

- 2011-2013 Writing Team for Next Generation Science Standards, Achieve, Inc., Washington, DC
- 2011-2013 Leader, Next Generation Science Standards Diversity and Equity Team, Achieve, Inc., Washington, DC
- 2009-2013 Board of Directors, Korean-American Educational Researchers Association
- 2012 English Language Proficiency Development Framework Committee, Council of Chief State School Officers, Washington, DC
- 2010-2011 Chair, Division G Early Career Award Committee, American Educational Research Association
- 2009 Committee of Visitors to Review the Portfolio of the Discovery Research K-12 and Research and Evaluation on Education in Science and Engineering Programs, Division of Research on Learning, National Science Foundation
- 2007-2009 Early Career Award Committee, American Educational Research Association
- 2004-2007 Committee on Science Learning, Kindergarten Through Eighth Grade, National Research Council
- 2004-2006 Board of Science Education, Center for Education, National Research Council
- 2003-2006 Board of Directors, National Association for Research in Science Teaching
- 2001-2004 Executive Member, Committee on Science Education K-12, Center for Education, National Research Council
- 2001-2003 Chair, Science and Diversity Synthesis Committee. A joint project by the Center for Research on Education, Diversity and Excellence at the University of California-Santa Cruz, the University of Houston, and the National Center for Improving Student Learning and Achievement in Mathematics and Science at the University of Wisconsin-Madison
- 2002 Committee of Visitors to Review the Portfolio of the Research on Learning and Education Program, Division of Research, Evaluation, and Communication, National Science Foundation

- 1999-2002 Committee for the Scholars of Color in Education (formerly Committee on the Role and Status of Minorities in Educational Research and Development), American Educational Research Association
- 1997-2000 Chair, Equity and Ethics Committee, National Association for Research in Science Teaching
- 1995-1998 *Journal of Research in Science Teaching* Award Committee, National Association for Research in Science Teaching
- 1994-1996 Project 2061 Equity Blueprint Committee, American Association for the Advancement of Science

STATE

- 2018-present New York State Science Content Advisory Panel, New York State Education Department, Albany, NY
- 2016-2020 New York State Science Conference Planning Committee, New York State Boards of Cooperative Education Services
- 2015-2018 New York State Science Education Steering Committee, New York State Education Department, Albany, NY
- 1995-1996 Advisory Board, Department of Environmental Education, Florida Department of Education
- 1993-1994 Writing Committee, Science for All Educators, Florida Department of Education, grant funded by the U.S. Department of Education

DISTRICT

- 2000-2005 Advisory Board, Miami-Dade County Urban Systemic Program, grant funded by the National Science Foundation
- 1994-1999 Advisory Board, Dade County Urban Systemic Initiative, grant funded by the National Science Foundation
- 1995-1997 Advisory Board, Dade County Public Schools, Academy of Instructional Leadership, grant funded by the U.S. Department of Education
- 1993-1996 Advisory Board, Region 6 Florida Statewide Systemic Initiative, grant funded by the National Science Foundation

PANELS

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- 2022 Building knowledge by focusing on academic language development for native English speakers and English learners. Council of Great City Schools panel (virtual)
- 2022 Reframing STEM education for equity and the role of education research: Fireside chat with Dr. Alondra Nelson, Acting Director and Deputy Director of the White House Office of Science and Technology Policy, and Dr. Sethuraman Panchanathan, Director of the National Science Foundation [Presidential session]. American Educational Research Association
- Note: See the video on the American Educational Research Association website, <https://www.youtube.com/watch?v=ZTFxo6Kton0&t=7s>
- 2022 Beyond stopping hate: Cultivating safe, equitable and affirming Education systems for Asian/Asian American students [Presidential session]. American Educational Research Association
- 2020 Integrating Science and Literacy in Elementary Education, National Academies of Sciences, Engineering, and Medicine (virtual)
- 2019 Contemporary Leadership in Science Education, Science Teachers Association of New York State annual conference, NY
- 2019 Language, Culture, and Education: Implications for Second Language Learners, Center for Applied Linguistics, Washington, DC
- 2016 New York State P-12 Science Standards Adoption, New York State Board of Regents, NY
- 2016 Advisory Panel to Review and Update WIDA's 2012 Amplification of the English Language Development Standards, PA
- 2015 #Sci4allSs Twitter Book Study Group, National Science Teachers Association, VA
- 2015 Finding Common Ground: How the New Math and Science Standards Can Equalize Education, *U.S. News and World Report* STEM Solutions Conference, CA
- 2015 Disciplined Dialogues Project-Building a Better Teacher Workplace, Spencer Foundation, CA
- 2014 Celebrating the Merck Institute for Science Education, NJ
- 2013 City & State on Education Forum, NY

- 2012 Advancing the College- and Career-Ready Agenda for All Students, American Diploma Project Network Leadership Team, Washington, DC
- 2011 High-Quality STEM Education for English Learners: Best Practices and Current Challenges, U.S. Department of Education Office of English Language Acquisition, Washington, DC
- 2010 New Ways to Assess What Children Learn in School, Spencer Foundation, IL
- 2010 Quality of Teaching English Language Learners in the Content Areas, Educational Testing Service, NJ
- 2010 Managing Career Development in the US, Korean-American Educational Researchers Association, CO
- 2008-2009 Science for English Language Learners Position Statements, National Science Teachers Association, VA
- 2008 English Language Learners for Washington State, Northwest Regional Educational Laboratory and Washington Department of Education, WA
- 2008 Professional Development of ELL Content Teachers, National Clearinghouse for English Language Acquisition and U.S. Department of Education, Washington, DC
- 2008 Inspiration Panel, University of Miami and NASA's Future Forum, FL
- 2007 Science Education Panel, Institute of Education Sciences, U.S. Department of Education, Washington, DC

INTERVIEWS AND PODCAST APPEARANCES

- 2022 *Conversations with CAST Speakers: Dr. Okhee Lee.*
<https://www.statweb.org/stat-studio?wchannelid=y1inik34h0&wmediaid=z7tmj2swg8>
- 2022 *Conversations with Tim: Examining How the 2020 Edition Impacts Multilingual Learner Education.*
<https://wida.wisc.edu/about/news/conversations-tim-examining-how-2020-edition-impacts-multilingual-learner-education>
- 2021 *Ask Matt–NGSS Science Education Advice From an Expert: Part 2 Science and Language.* Hosts: Eugene Cordero and Matt d'Alessio (February 5). <https://www.buzzsprout.com/282085/7483864-interview-with-dr-okhee-lee-part-2-science-and-language>

- 2021 *Ask Matt–NGSS Science Education Advice From an expert: Part 1 Intentions of the NGSS*. Hosts: Eugene Cordero and Matt d’Alessio (February 2). <https://www.buzzsprout.com/282085/7483804-interview-with-dr-okhee-lee-part-1-intentions-of-the-ngss>
- 2020 *RBERNing Questions–Supporting ELLs in Science*. Host: Liesl Coope; Co-host: Christopher Leece (April 29). <https://drive.google.com/file/d/13a-8WRgqNXHqu41NMg2xHniJsGf2y6Qd/view>

INVITED SPEECHES (263 TOTAL)

TALKS AT THE INTERNATIONAL LEVEL

- 2021 *Creating Equitable and Inclusive Science Learning Opportunities for Culturally Diverse Students*, science4all, Friedrich-Schiller-Universität Jena, Germany
- 2021 *Integrating STEM and Language With All Students, Including Second Language Learners*, Korean Association of Science Education International Conference, South Korea
- 2020 *The COVID-19 Pandemic and Systemic Racism–Creating “a New Normal” for STEM Education With Social Justice for All Students*, Educational Access, Inclusion, and Learning in a Time of COVID-19: The Role of Technology, International Conference on Education Quality
- 2019 *Multidisciplinary Convergence Including Engineering Education for All Students Including English Learners*, Jubilee Symposium on Inclusive Learning, Education, and Workforce Development in Future Societies hosted by the Swedish Royal Academy of Engineering Sciences in partnership with the U.S. National Academy of Engineering and Embassy of Sweden
- 2010 *Envisioning the Role of Trans-National Educational Researchers in Global Society*, Korean American Educational Researchers Association Annual Meeting
- 1996 *Science Teacher Education for the 21st Century in South Korea*, Korean Association for Research in Science Education International Seminar and Workshop in Science Education
- 1991 *Comparative Perspectives of Science Education in the United States and South Korea*, Seoul National University Department of Physical Science Education

TALKS AT THE NATIONAL LEVEL

- 2022 *Science and Language Integration With Multilingual Learners: Asset-Oriented Framing Across Research, Policy, and Practice* (with Greg Borman and Theresa Ocol). National Science Teaching Association (2 sessions)

- 2022 *Asset-Oriented Approaches to Integrating Science and Language with All Students, Including Multilingual Learners* (with Theresa Ocol). Council of the Great City Schools
- 2022 *Developing Instructional Materials Aligned to the Next Generation Science Standards for All Students, Including Multilingual Learners*. National Science Teaching Association
- 2022 *Content Integration in Preschool Through Elementary Classrooms* (with Scott Grapin, Alison Haas, and Erin Rasmussen). National Academies of Sciences, Engineering, and Medicine, Washington, DC
- 2022 *Developing Instructional Materials Aligned to the Next Generation Science Standards for All Students, Including Multilingual Learners*. National Science Teaching Association, Chicago, IL
- 2022 *Strengthening Science Teaching Practice with Crosscutting Concepts* (with Jeffrey Nordine). National Science Teaching Association, Chicago, IL
- 2022 *Open Education Resources Panel. Building Capacity in State Science Education: Leveraging Freely Available Open Education Resources*
- 2022 *Open Education Resources: Integrating Science And Language With Multilingual Learners in Elementary Science. Building Capacity in State Science Education: Leveraging Freely Available Open Education Resources*
- 2022 *Culturally and Linguistically Responsive and Sustaining Education. Building Capacity in State Science Education: Leveraging Freely Available Open Education Resources*
- 2022 *Developing Instructional Materials Aligned to the Next Generation Science Standards for All Students, Including Multilingual Learners*. National Science Teaching Association
- 2022 *Exploring the Instructional Shifts of TEKS: A New Vision for Science/STEM*. National Science Teaching Association
- 2021 *Next Generation Science Standards Special Issue Webinar* (with Todd Campbell). The Association of for Science Teacher Education
- 2021 *Integrating Science and Language with All Students, Including Multilingual Learners* (with Rita Januszyk). National Science Teaching Association
- 2021 *Crosscutting Concepts: A Professional Book Study for K-12 Educators*, National Science Teaching Association Professional Book Study

- 2021 *Teacher Tip Tuesday: Learn and Lead on Twitter*, National Science Teaching Association
- 2021 *Using Phenomena to Promote Equity in Science Instruction*, 2021 Virtual Summer Leadership Institute, National Science Education Leadership Association
- 2021 *Crosscutting Concepts: A Professional Book Study for K-12 Educators*, National Science Teaching Association Professional Book Study (four sessions)
- 2021 *Integrating Science and Language for All Students With a Focus on English Learners*, National Science Education Leadership Association
- 2021 *Teaching Science to Address Societally Pressing Phenomena and Challenges: The COVID-19 Pandemic and Systemic Racism* (with Todd Campbell), Council of State Science Supervisors
- 2021 *Transforming Science Learning: Teaching Science to Address Societally Pressing Phenomena and Challenges: The COVID-19 Pandemic and Systemic Racism*, National Science Teaching Association Transforming Science Learning Series
- 2020 *How Instructional Shifts in STEM and Language Support Each Other for English Learners* (with Harold Asturias), Council of Great City Schools BIRE Conference
- 2020 *The COVID-19 Pandemic and Systemic Racism: Creating “a New Normal” for STEM Education With Social Justice for All Students* (with Todd Campbell), Council of Great City Schools BIRE Conference
- 2020 *Convergences and Discrepancies in Disciplinary Practices Across Content Areas With a Focus on English Learners: Using Argument and Modeling as Examples*, State Collaborative on Assessment and Student Standards, Council of Chief State School Officers
- 2020 *Integrating Science Learning, Language Learning, and Computational Thinking With All Students, Including English Learners*, Inaugural STEM20: Virtual Event, National Science Teaching Association
- 2020 *Multidisciplinary Convergence Teaching and Learning With All Students*, National Science Education Leadership Association Summer Leadership Institute
- 2020 *What Science and STEM Educators Can Learn From COVID-19: Harnessing Data Science and Computer Science Through Multidisciplinary Convergence of STEM Subjects*, National Science Education Leadership Association Summer Leadership Institute
- 2019 *English Learners in STEM Subjects*, STEM Forum & Expo hosted by National Science Teachers Association

- 2019 *Content Standards in STEM Subjects and Instructional Implications for English Learners*, Council of Great City Schools
- 2019 *Opening Session: Framing the Conversation: Language and STEM With English Learners*, National Science Teachers Association Virtual Conference
- 2019 *Professional Development of the National Science Teachers Association Leadership and Staff*, National Science Teachers Association
- 2019 *English Learners in STEM Subjects: Virtual Book Study*, National Science Teachers Association
- 2019 *STEM Education for All Students*, National Science Education Leadership Association Webinar
- 2019 *Promising Instructional Strategies for Supporting English Learners in STEM Subjects*, National Research Council #ELSTEM Webinar
- 2018 *English Learners in STEM Subjects: Transforming Classrooms, Schools, and Lives*, National Research Council #ELSTEM Webinar
- 2018 *English Learners in STEM Subjects: Transforming Classrooms, Schools, and Lives*, National Research Council and National Science Foundation
- 2018 *Opening General Session: Using Phenomena to Promote Equity in Instruction*, National Science Teachers Association Virtual Conference
- 2018 *Science Education for All: Instructional Shifts to Promote Science and Language Learning*, National Science Education Leadership Association Summer Leadership Institute
- 2018 *Integrating Science Learning and Computational Thinking With All Students, Including English Learners* (with Alison Haas and Scott E. Grapin), National Science Education Leadership Association Summer Leadership Institute
- 2018 *Science and Language Instruction and Assessment With All Students, Including English Learners* (with Scott E. Grapin and Alison Haas), National Science Education Leadership Association Summer Leadership Institute
- 2018 *Nexus of Change: Working at the Intersections Between Broadening Participation, STEM and Computer Science Disciplines, and Technological Innovations in Education*, National Science Foundation Discovery Research K-12 Principal Investigator Meeting
- 2018 *Engaging All Students in Science*, National Science Teachers Association featured presentation

Note: See the video on the National Science Teachers Association website:
<https://www.youtube.com/watch?v=3yTdlw9JKXQ>

- 2018 *Equity in Assessment*, Council of Science State Supervisors
- 2017 *STEM for All: Instructional Shifts to Promote Science and Language Learning*, National Science Teachers Association Area Conference
- 2017 *ELP Standards Aligned With Content Standards: Shared Opportunities and Responsibilities*, WIDA Annual Conference
- 2017 *The Changing World of Assessment With Student Diversity and Equity*, National Science Teachers Association National Congress on Science Education
- 2017 *Engaging All Students in Science*, National Science Teachers Association National Congress on Science Education
- 2017 *NGSS-Aligned Science Instructional Materials for English Learners*, National Research Council Workshop on Instructional Materials for the Framework for K-12 Science Education and the Next Generation Science Standards
- 2017 *NGSS Instructional Shifts and Language Instructional Shifts Support Each Other With English Learners*, National Research Council Early STEM and Young Dual Language Learners
- 2017 *Equity, Inclusion, and Diversity*, National Research Council Educator Capacity Building Workshop
- 2016 *NGSS With All Students, Including English Learners*, National Science Foundation Presidential Awards for Excellence in Mathematics and Science Teaching Symposium on Active Learning
- 2016 *Equity and Diversity in STEM Education: Making the Next Generation Science Standards (NGSS) Accessible to All Students*, STEM Education for All: Fostering Diversity Through K-12 and Higher Education Partnerships & Frontiers in Microbiology Education Conference
- 2015 *Development of Language-Focused Three-Dimensional Science Instructional Materials to Support English Language Learners in Fifth Grade*, National Science Foundation Next Generation STEM Learning for All Forum
- 2015 *Connections of NGSS to CCSS for All Students, Including English Language Learners*, National Science Teachers Association Conference
- 2015 *Next Generation Science Standards (NGSS): All Standards, All Students*, Mary C. McCurdy Lecture at the National Science Teachers Association Conference

- 2015 *NGSS and CCSS for English Language Learners*, National Association for Bilingual Education Conference
- 2015 *NGSS for Diversity and Equity*, Next Generation Science Standards Network Leadership Conference
- 2014 *General Closing Session: Next Generation Science Standards Practices in Action*, National Science Teachers Association Virtual Conference
- 2014 *A Review of DR K-12 English Language Learner Projects and Their Contribution to Research*, National Science Foundation Discovery Research K-12
- 2014 *Next Generation Science Standards for Diversity and Equity With a Focus on English Language Learners*, Equity Conversations: Updates in STEM Education K-12
- 2014 *Next Generation Science Standards for English Language Learners*, Language, Culture, and Identity Conference
- 2014 *Next Generation Science Standards for English Language Learners*, National Science Teachers Association Professional Development Institute on Increasing Language Skills and Access to Rigorous Science Education: Examining the Opportunities That the Next Generation Science Standards Provide to English Learners, coordinated by the USDOE Office of English Language Acquisition
- Note:* I also served as a coordinator of the conference and facilitator for panel discussions.
- 2013 *The Role of Oral and Written Discourse in Teaching and Learning Science*, National Research Council Literacy for Science: Exploring the Intersection of the Next Generation Science Standards and Common Core for ELA Standards Workshop
- 2013 *The Common Core and the Next Generation Science Standards: Implications for STEM Education Research*, U.S. Department of Education Institute of Education Sciences Principal Investigators' Meeting
- 2013 *Next Generation Science Standards: All Standards, All Students*, Materials Research Science and Engineering Centers funded by the National Science Foundation and University of California, Santa Barbara
- 2013 *Supporting Learning in Diverse Science Classrooms*, Council of State Science Supervisors Building Capacity in State Science Education National Conference
- 2013 *Making NGSS Accessible to All Students*, Council of State Science Supervisors Building Capacity in State Science Education National Conference

2013 *Implications for Teacher Preparation, Professional Development, Curriculum and Policy*, National Science Teachers Association Pre-Conference on Enhancing Science Instruction to Meet the Needs of English Learners in Grades 6-12 coordinated by the USDOE Office of English Language Acquisition

Note: I also served as a coordinator of the conference and facilitator for panel discussions.

2013 *Next Generation Science Standards: All Standards, All Students*, Council of State Science Supervisors Annual Meeting

2013 *Next Generation Science Standards for English Language Learners*, National Association of Bilingual Education Annual Meeting

2012 *Student Diversity and Science Education Research in a Global Context: Research Agenda and the Role of NARST*, National Association for Research in Science Teaching

2011 *Overview of Science Education for English Learners*, U.S. Department of Education Office of English Language Acquisition High-Quality STEM Education for English Learners: Best Practices and Current Challenges Roundtable

Note: I also served as a coordinator of the roundtable and facilitator for panel discussions.

2011 *Effective STEM Education Strategies for Diverse and Underserved Student Groups*, National Research Council Workshop on Successful STEM Education in K-12 Schools

2010 *Methodological Issues in Implementation Research in Urban Settings*, U.S. Department of Health and Human Services Improving Implementation Research Methods for Behavioral and Social Science Meeting

2009 *Promoting Science Among English Language Learners*, Council of Great City Schools Annual Meeting

2009 *The Knowledge Base for Science Education With English Language Learners*, International Reading Association Annual Meeting

2008 *Methodological Issues in an Urban Study*, National Science Foundation Discovery Research K-12 Principal Investigators' Meeting

2008 *Instructional Interventions to Promote Science Learning and English Language Development of English Language Learners*, National Superintendents' Annual Forum

- 2008 *Equity in Science Education*, American Educational Research Association Annual Meeting
- 2007 *Inquiry-Based Science for English Language Learners*, U.S. Department of Education Annual Meeting
- 2006 & 2007 *What Does the Research Say?* National Science Foundation and National Science Teachers Association
- 2006 *Promoting Science Among English Language Learners*, U.S. Department of Education Office of English Language Acquisition Celebrate Our Rising Stars Summit
- 2005 & 2006 *Assessing Science and Literacy Achievement of English Language Learners Within a High-Stakes Testing Policy Context*, National Science Foundation and National Science Teachers Association Science Assessment Conference
- 2001 *Science for All Students*, National Science Foundation Southwest Regional Conference
- 2001 *The Achievement Gap in Science and Mathematics Education*, National Science Foundation

TALKS AT THE STATE LEVEL

- 2022 *Asset-Oriented Framing of Science and Language Integration with Multilingual Learners*. Science Teachers Association of Texas, Conference for the Advancement of Science Teaching, Dallas, TX
- 2022 *Justice-Centered STEM Education to Address Pressing Societal Challenges*. Science Teachers Association of Texas, Conference for the Advancement of Science Teaching, Dallas, TX
- 2022 *Integrating Science Learning, Language Learning, and Computational Thinking with All Students, Including Multilingual Learners*. Alaska Science Teachers Association 2021 AK STEAM Conference, Juneau, AK
- 2022 *Justice-Centered STEM Education to Address Pressing Societal Challenges*. Alaska Science Teachers Association 2021 AK STEAM Conference, Juneau, AK
- 2022 *Addressing Societal Challenges Using the Case of the COVID-19 Pandemic: An Opportunity for Justice-Centered STEM Education*. Alaska Science Teachers Association 2022 AK STEAM Conference, Juneau, AK
- 2022 *The Role of Phenomena and Problems in Science and STEM Education: Traditional, Contemporary, and Future Approaches*. Oregon Science Teachers Association

- 2022 *Integrating Science and Language for All Students with a Focus on English Language Learners / Multilingual Learners* (with Theresa Ocol). Regional Bilingual Education Resource Network, New York State Education Department
- 2022 *Integrating Science and Language for All Students with a Focus on English Language Learners*. New York State Board of Regents
- 2022 *Asset-Oriented Framing of STEM and Language Learning with Multilingual Learners* (with Theresa Ocol). Rhode Island Honors Colloquium at the University of Rhode Island
- 2022 *Integrating Science and Language with All Students, Including Multilingual Learners*. Vermont Science Teachers Association
- 2021 *Integrating Science and Language for All Students with a Focus on English Language Learners / Multilingual Learners* (with Gregory Borman and Theresa Ocol). New York State SCDN Science Framework
- 2021 *Justice-centered STEM education*. Minnesota Science Teachers Association
- 2021 *Integrating Science and Language With a Focus on English Learners / Multilingual Learners*, Massachusetts Science Education Leadership Association
- 2021 *Elementary Science and Engineering for ALL Students*, Michigan Mathematics and Science Leadership Network and Charles A. Dana Center, MI
- 2021 *STEM Education With Equity for a New Normal*, CA Early Implementer Collaborative, K-12 Alliance
- 2021 *Elementary Science Learning and Literacy Integration*, Michigan Mathematics and Science Leadership Network and Charles A. Dana Center, MI
- 2021 *STEM Education With Equity for a New Normal*, New York State BOCES Mathematics and Science Group
- 2021 *Integrating Science and Language for All Students With a Focus on English Language Learners*, Science Content Advisory Panel for the New York State Education Department
- 2021 *Computational Thinking and Modeling Integrated Into Science Instruction* (with Alison Haas), Oregon Science Teachers Association
- 2020 *Integrating Science Learning, Language Learning, and Computational Thinking With All Students, Including English Learners* (with Alison Haas), Oregon Science Teachers Association

- 2020 *The COVID-19 Pandemic and Systemic Racism: Creating “a New Normal” for Science and STEM Education With Social Justice for All Students* (with Todd Campbell), Connecticut Science Teachers Association
- 2020 *Engaging All Students in Learning Science and Developing Language* (with Emily Kang), New York State TESOL Conference
- 2020 *ELP Standards Aligned to Content Standards: Shared Opportunities and Responsibilities*, New York State TESOL Conference
- 2020 *Integrating STEM and Language With All Students, Including English Learners*, Science Teachers Association of Texas Virtual Conference
- 2020 *Making Everyday Phenomena Phenomenal—Using Phenomena to Promote Equity in Science Instruction*, Delaware Science Education Department
- 2020 *Integrating STEM and Language With All Students, Including English Learners*, California Science Teachers Association Virtual Science Education Conference
- 2020 *The COVID-19 Pandemic and Systemic Racism: Creating “a New Normal” for STEM Education With Social Justice for All Students*, Oregon Science Teachers Association and Washington Science Teachers Association Collaborative Virtual Conference
- 2020 *Convergences and Discrepancies Across STEM and Language for All Students, Including English Learners*, Oregon Science Teachers Association and Washington Science Teachers Association Collaborative Virtual Conference
- 2020 *Learning From COVID-19: Harnessing Data and Computer Science for Engaging K-12 Learners in Current Societal Issues*, Leveraging Our Statewide Network to Support STEM Teaching and Learning, New York State Master Teachers Program
- 2020 *Convergences and Divergences Across Content Areas*, Virtual Unconference, Nebraska Association of Teachers of Science
- 2020 *Integrating Science and Language With All Students, Including English Learners*, Hoosier Association of Science Teachers
- 2020 *Science and Language Assessment of All students, Including English Learners*, Hoosier Association of Science Teachers
- 2019 *Transforming Innovations Into Reality in Science* (panel moderator), Science Teachers Association of New York State
- 2019 *STEM—For All Students*, Connecticut Science Teachers Association

- 2019 *Integrating Computational Thinking Into Science Learning for All Students* (with Alison Haas), Connecticut Science Teachers Association
- 2019 *Science and Language Assessment of All Students, Including English Learners*, Oregon Science Teachers Association
- 2019 *STEM Education for All Students, Including English Learners*, Oregon Science Teachers Association
- 2019 *Science and Language Assessment of All Students, Including English Learners*, Nebraska Association of Teachers of Science
- 2019 *Engaging All Students in Science*, Nebraska Association of Teachers of Science
- 2019 *English Learners in STEM Subjects*, Webinar for Oregon Science Teachers Association
- 2019 *Science and Language Assessment of All Students, Including English Learners*, Washington Association of Bilingual Education
- 2019 *STEM Education for All Students, Including English Learners*, Washington Association of Bilingual Education
- 2018 *Science and Language Assessment of All Students, Including English Learners*, Virginia Association of Science Teachers
- 2018 *Science for All: Instructional Shifts to Promote Science and Language Learning With All Students, Including English Learners*, Virginia Association of Science Teachers
- 2018 *Science for All: Instructional Shifts to Promote Science and Language Learning With All Students, Including English Learners*, Texas Regional Collaboratives Annual Meeting
- 2018 *Science and Language Assessment of All Students, Including English Learners*, Texas Regional Collaboratives Annual Meeting
- 2018 *Formative Assessment of Science and Language Learning With All Students, Including English Learners*, Michigan Math and Science Center
- 2018 *Science for All: Instructional Shifts to Promote Science and Language Learning With All Students, Including English Learners*, Rhode Island Science Teacher Association
- 2018 *Science and Language Assessment of All Students, Including English Learners*, Rhode Island Science Teacher Association

- 2017 *How Science (NGSS) Instructional Shifts and Language Instructional Shifts Support Each Other With English Learners*, Expansion of K-6 NGSS Instructional Specialist Program Meeting, OR
- 2017 *NGSS 3-Dimensional Learning and Assessment of Science and English Proficiency*, Hawaii Department of Education Science Kickstart
- 2017 *NGSS Instructional Shifts and Language Instructional Shifts Support Each Other With English Learners*, Hawaii Department of Education Science Kickstart
- 2017 *NGSS Instructional Shifts and Language Instructional Shifts Support Each Other*, California Alliance for Next Generation Science Standards
- 2017 *Science Standards*, New York State Board of Cooperative Educational Services Workshop
- 2016 *ELP Standards and Content Standards: Language Instructional Shifts*, Arizona TESOL State Conference
- 2016 *NGSS Instructional Shifts Provide Opportunities for Language Learning*, Expansion of K-6 NGSS Instructional Specialist Program, OR
- 2016 *Next Generation Science Standards (NGSS): A Foundation*, Boards of Cooperative Educational Services of New York State
- 2015 *The Next Generation Science Standards: All Standards, All Students*, NGSS–Opportunities for Iowa Conference
- 2015 *STEM Equity and Needs of Disadvantaged Students in Rural Areas*, STEM Education Equity: Policies to Create Opportunities in Rural Iowa Conference
- 2015 *NGSS for All Students*, Delaware Department of Education
- 2015 *NGSS Three-Dimensional Learning and Language Use*, Expansion of K-6 NGSS Instructional Specialist Program, OR
- 2015 *Promoting Science Among English Language Learners (P-SELL) Scale-Up*, Sanibel Leadership Conference, FL
- 2015 *Next Generation Science Standards and Common Core State Standards for English Language Learners*, Sanibel Leadership Conference, FL
- 2015 *Next Generation Science Standards (NGSS): All Standards, All Students*, Delaware NGSS Leadership Team Meeting
- 2014 *Science Classroom Instruction for English Language Learners*, Teaching Academic Content and Literacy to English Learners in Elementary and Middle

Schools Institute, Regional Educational Laboratory Southeast Research to Practice Bridge Event

- 2014 *Next Generation Science Standards: All Standards, All Students*, Washington Science Teachers Association
- 2014 *Common Core and Next Generation Science Standards in the Dual Language Classroom: Implementation Strategies*, Dual Language Summer Institute, NJ
- 2014 *Common Core and Next Generation Science Standards in the Dual Language Classroom: An Overview*, Dual Language Summer Institute, NJ
- 2014 *Next Generation Science Standards: All Standards, All Students*, Science Teachers Association of New York State
- 2014 *General Closing Session: Next Generation Science Standards Practices in Action*, National Science Teachers Association Virtual Conference
- 2013 *Next Generation Science Standards: All Standards, All Students*, Florida Association of Science Teachers Conference
- 2013 *Next Generation Science Standards: All Standards, All Students*, Florida Association of Science Supervisors Conference
- 2013 *Next Generation Science Standards: All Standards, All Students*, Maine Science Teachers Association Conference
- 2012 *Language Demands and Opportunities in Relation to Next Generation Science Standards for English Language Learners*, California Accountability Leadership Institute
- 2012 *Promoting Science Learning and Language Development of English Language Learners*, Washington Association of Bilingual Education
- 2012 *Promoting Science Learning and Language Development of English Language Learners*, New Jersey Symposium on Common Core and English Language Learners
- 2012 *Science and Language for English Language Learners*, New York State Association for Bilingual Education
- 2005 *Developing a Culture for Students to Develop a Science Achievement Identity*, Maryland Institute for Minority Achievement and Urban Education Optimizing Science Achievement for All Students Symposium
- 2001 *Science Instruction for English Language Learners*, Florida Department of Education Bureau-Wide Education Conference

1998 *Science Instruction and Assessment for English Language Learners in the State of Florida*, Florida Department of Education Policies and Practices for Instruction and Assessment of English Language Learners Symposium

1995 *Culturally and Linguistically Diverse Students in Science Education*, National Science Foundation and the Education Development Center State-Wide Systemic Initiative Cross-State Work Session

Note: In addition to making a keynote speech, I also served as the local coordinator of the conference.

TALKS AT THE DISTRICT LEVEL

2022 *Asset-Oriented Framing of Content and Language Learning with Multilingual Learners*. Division of Multilingual Learners, New York City Department of Education

2022 *Crosscutting Concepts in Our Classrooms* (with Jeffrey Nordine). Teacher professional learning for Waunakee Community School District, WI

2022 *Justice-Centered STEM Education*. STEAM Launch 2022, San Diego United School District, CA

2022 *Strengthening Science Teaching with Crosscutting Concepts* (with Jeffrey Nordine). Prince George's County Public Schools, MD

2022 *Using Crosscutting Concepts to Promote Student Equity Across Content Areas* (with Jeffrey Nordine). Prince George's County Public Schools, MD

2022 *Integrating Science and Language for All Students with a Focus on English Language Learners / Multilingual Learners* (with Theresa Ocol). Long Island Teacher Institute 2020 Virtual Conference

2021 *Using Phenomena to Engage Multilingual Learners / English Language Learners in Science Learning and Language Development*, New York City Department of Education

2021 *Women in STEM: Paving the way for girls everywhere*, Spring STEM Conference: Making Connections, Thriving in a Digital World, New York City Department of Education

2021 *Doing Science, Using Language for Multilingual Learners/English Language Learners Series* (with Theresa Ocol, Emily Kang, and Clara Bauler), New York City Department of Education (four sessions)

- 2021 *Pursuing Diversity: The Words We Choose*, Community to Classroom Connections Webinar Series, Omaha Public Schools
- 2020 *Supporting ELLs in Science*, RBERning Questions Podcast, Mid-State Regional Bilingual Education Resource Network (RBERN) at Onondaga Cortland Madison Board of Cooperative Educational Services
- 2019 *Science Education Initiative in Omaha Public Schools*, Omaha Public Schools
- 2019 *Transforming the Teaching of Middle School Science*, New York City Department of Education
- 2019 *STEM Education for All Students, Including English Learners*, Omaha Public Schools
- 2019 *STEM Education for All Students, Including English Learners*, Lincoln Public Schools
- 2018 *Implementing New York State P-12 Science Learning Standards to Promote Science and Language Learning of English Learners*, Division of English Language Learners and Student Support, New York City Department of Education
- 2017 *Science for All: Promoting Equitable Science Teaching Practices to Support Student Learning*, Onondaga-Cortland-Madison Counties Board of Cooperative Educational Services Conference
- 2017 *Science Initiative for English Learners Institute*, New York City Department of Education Division of English Language Learners and Student Support
- 2014 *Next Generation Science Standards and Common Core: Engaging English Language Learners*, New York City–2/Long Island Region, Adelphi University
- 2013 *Next Generation Science Standards for English Language Learners*, Palm Beach County Public Schools Multicultural Department
- 2013 *Next Generation Science Standards: All Standards, All Students*, Super Science Saturday by Lee County Public Schools
- 2012 *Next Generation Science Standards for English Language Learners*, New York City Department of Education Research-Based Educational Practices for English Language Learners Conference
- 2012 *Next Generation Science Standards for English Language Learners*, New York City Department of Education

2008 *Science Instruction With English Language Learners*, Miami-Dade County Public Schools

2008 *Science and Literacy for English Language Learners*, Raising the Bar on Science Instruction for ELLs Symposium for New York Public Schools

TALKS FOR BUSINESSES AND ORGANIZATIONS IN EDUCATION

2022 *Justice-Centered STEM Education*. Cosmos Club Education Group

2021 *Justice-Centered STEM Education*. MESA USA

2021 *Justice-Centered STEM Education to Address Pressing Societal Challenges Using the Case of the COVID-19 Pandemic* (with Todd Campbell). Texas Instruments

2021 *How COVID-19, Climate Change and Other Crises are Changing Science Instruction* (with Shiela Lee, Tricia Shelton, and Liana Loewus). Education Writers Association

2021 *Articulating Multilingual STEM Teacher Needs Now*. STEMTeachersNYC and Institute of Latin American Studies at Columbia University

2021 *STEM Education with Justice for All Students: The COVID-19 Pandemic and Justice* (with Todd Campbell). STEM4Real

2021 *Creating “A New Normal” for STEM Education with Justice for All Students: COVID-19 Pandemic and Systemic Racism*, 2021 JASON National Educators’ Virtual Conference, JASON Learning

2021 *COVID-19 and Systemic Racism* (with Todd Campbell), BSCS

2021 *Integrating Science and Language With a Focus on English Learners/ Multilingual Learners*, Howard Hughes Medical Institute (two sessions)

2021 *Equity Call to Action*, OpenSciEd Research, Digital Promise

2021 *Language and Culture in STEM Lesson Planning*, STEM4Real

2020 *COVID-19 and Systemic Racism: Creating a “New Normal” for STEM Education*, Master Teachers of Math and Science

2020 *How the NGSS Science Instructional Shifts and Language Instructional Shifts Support Each Other for English Learners*, First Annual STEMteachersExpo

2020 *STEM Education for All Students, Including English Learners*, Accelerate Learning, Inc./STEMscopes

- 2016 *NGSS With All Students, Including English Learners, Biological Sciences Curriculum Study (BSCS)*
- 2016 *NGSS With All Students, Including English Learners, WGBT for PBS*
- 2016 *Engineering is Elementary With All Students, Including English Learners, Boston Museum of Science*
- 2016 *Content and Language Learning Across Subject Areas With English Learners, Stanford University Language, Equity, and Education Policy Working Group*
- 2015 *NGSS for Diversity and Equity, Building a Constituency for Science: The Impact of the Next Generation Science Standards on the Work of Informal Science Institutions Meeting, American Museum of Natural History and the Carnegie Corporation of New York*
- 2017 *How Teachers and Parents Can Assist Korean Children's Language Development Through Mathematics and Science, Korean American Teachers Association of New York*
- 2015 *National Policy Perspective on Science Standards and ELP (or ELD) Standards, Exploratorium Conference on Exploring Science and English Language Development: Implications for Teacher Professional Learning*
- 2014 *Diversity and Equity in Science: All Standards, All Students, New York Hall of Science*
- 2014 *Next Generation Science Standards: All Standards, All Students, Merck Institute for Science Education*
- 2014 *Culture and Language for Student Diversity, STEMposium: Closing the Opportunity Gap in STEM Education Conference*
- 2014 *Closing the Opportunity Gap to Effective STEM Learning Environments: Using NGSS and Language as Pathways, STEMposium: Closing the Opportunity Gap in STEM Education Conference*
- 2014 *Next Generation Science Standards: All Standards, All Students, Merck Institute for Science Education*
- 2013 *Next Generation Science Standards and Common Core State Standards for Diversity and Equity, Stanford University Language, Equity, and Education Policy Working Group*
- 2012 *Next Generation Science Standards for English Language Learners, CREATE conference on English Learners in the Content Area Classes: Teaching for Achievement in the Middle Grades*

- 2012 *Next Generation Science Standards for English Language Learners* (breakout session with L. Meade, M. Milano, C. Negrón, and R. Zimmerman), CREATE conference on English Learners in the Content Area Classes: Teaching for Achievement in the Middle Grades
- 2008 *Instructional Interventions for English Language Learners That Support the Use and Learning of Academic Language and Content*, Center for Research on the Educational Achievement and Teaching of English Language Learners
- 2008 *Science and Literacy for English Language Learners*, Literacy Institute sponsored by the National Geographic Society and Literacy Achievement Research Center
- 2003 *Measuring for Scale-Up in Education*, Conceptualizing Scale-Up: Multidisciplinary Perspectives Conference
- 2003 *Teaching Science to Culturally and Linguistically Diverse Students: Critical Issues and Promising Practices*, Mid-Atlantic Equity Center Annual Regional Conference
- 2000 *Equity for Culturally and Linguistically Diverse Students in Science Education: Recommendations for a Research Agenda*, National Institute for Science Education Forum

TALKS AT HIGHER EDUCATION INSTITUTIONS

- 2021 *COVID-19 and Social Justice: A Storyline for Promoting Transdisciplinary Knowledge Production to Connect STEM Learning to Societally Pressing Problems* (with Todd Campbell), University of Hawai'i–West O'ahu
- 2021 *Asset-Oriented Framing of Content and Language Learning with Multilingual Learners*. Adler Graduate School of Education
- 2021 *STEM Education With Equity for “a New Normal,”* College of Education and Human Development, Texas A&M University
- 2021 *STEM Education and Equity*, Be Inspired: STEM in Your Future Classroom–2021 Pre-Service Teacher STEM Conference, University of Northern Iowa
- 2021 *The COVID-19 Pandemic and Systemic Racism: Creating a “New Normal” for STEM Education With Social Justice for All Students* (with Todd Campbell), Northern Arizona University
- 2020 *Multidisciplinary Convergence Teaching and Learning Across STEM and Language for All Students, Including English Learners*, New York University Department of Teaching and Learning Theories and Philosophies of Teaching and Learning Lecture Series

- 2020 *Multidisciplinary Convergence Teaching and Learning Across STEM and Language for All Students, Including English Learners*, 2019/20 Dean's Lecture Series, Graduate School of Education, University of Buffalo
- 2019 *Science and Language Integration With All Students, Including English Learners*, Quinnipiac University Science Teaching and Learning Center
- 2018 *STEM Education for All Students, Including English Learners*, Southern Methodist University, School of Education and Graduate Student Organization
- 2016 *Next Generation Science Standards (NGSS): Science and Language*, Rutgers Graduate School of Education Brown Bag Lunch Talk
- 2015 *Effective Science Instruction for English Language Learners*, University of North Carolina
- 2015 *Next Generation Science Standards and Common Core State Standards for All Students, Including English Language Learners*, New York University Department of Teaching and Learning Research Colloquium Series
- 2014 *Next Generation Science Standards*, Seoul National University
- 2014 *Effective Science Instruction for English Language Learners*, University of Massachusetts at Boston and Center of Science and Mathematics in Context Summer Institute
- 2014 *Next Generation Science Standards and Common Core: Engaging English Language Learners*, Western Washington University
- 2013 *Next Generation Science Standards: All Standards, All Students*, Lehman College
- 2013 *Educating All Students: English Language Learners*, K-12 Educators in Professional Development Workshop, New York University
- 2013 *Next Generation Science Standards for English Language Learners*, University of Illinois at Chicago Bilingual/ESL Teacher Training Summer Institute
- 2013 *Science and Language for English Learners*, Steinhardt School of Culture, Education, and Human Development Sci-Ed-Expo, New York University
- 2013 *The Common State Standards: Potential Outcomes and Consequences in Relation to Student Diversity and Equity*, New York University Steinhardt Education Policy Breakfast Series
- 2013 *Diversity and Equity in Science Education*, University of Arizona Annual Graduate Student Colloquy

- 2008 *Language and Culture in Science Instruction*, Science Made Sensible Project funded by the National Science Foundation and University of Miami College of Arts and Sciences
- 2008 *The Knowledge Base for Science Education With English Language Learners*, Miami-Dade College Pathways to Excellence in Teaching Project
- 2006 *Diversity and Science Education: What Research Says About English Language Learners*, Institute for Integrated Science at Miami University
- 2005 *Big Ideas in Science for English Language Learners and More*, University of Pittsburgh Institute for Learning, Learning Research and Development Center
- 2003 *Cognitive, Cultural, and Linguistic Scaffolding for Diverse Groups of Students in Science Instruction*, University of Michigan Knowledge Sharing Institute, Center for Curriculum Materials in Science
- 2002 *Science and Literacy for Linguistically Diverse Elementary Students*, Teachers College, Columbia University Urban Science Education Center
- 2002 *Science for All: Instructional Intervention to Promote Science Learning and Literacy Development of Linguistically Diverse Elementary Students*, University of California School of Education, Santa Barbara
- 2002 *Diversity and Teaching*, University of Miami Alumni Lecture Series
- 2000 *Science Instruction for Culturally and Linguistically Diverse Students*, University of Illinois Project TAT One-Day Institute
- 1996 *Science Literacy With Students From Diverse Languages and Cultures*, University of New York Bilingual and Second Language Education Research Symposium
- 1989 *Student Motivation to Learn*, Miami-Dade Community College Department of Psychology and Education

DISCUSSANT

- 2022 *Elementary preservice teachers learning to support equitable sensemaking* [Symposium]. National Association for Research in Science Teaching.
- 2022 *Equity and justice in engineering and science: Centering Black and Latinx culture, language and identity* [Symposium]. National Association for Research in Science Teaching.
- 2021 *Transforming science education by fostering students' creativity and critical thinking* [Invited Speaker Session]. American Educational Research Association.

- 2017 *Using NGSS to inform and provide equitable instruction, learning, and assessments to diverse students* [Poster presentation]. American Educational Research Association.
- 2013 *What's language got to do with it* [Paper presentation]. Principal investigators' meeting, U.S. Department of Education Institute of Education Sciences.
- 2011 *Advancing English language learners in science and math: Realizing the promise* [Roundtable]. American Educational Research Association.
- 2011 *Language in the science classroom* [Paper presentation]. American Educational Research Association.
- 2011 *Advancing English language learners in science and math: Realizing the promise* [Symposium]. American Educational Research Association.
- 2011 *Effective science teaching for English language learners* [Symposium]. American Educational Research Association.
- 2010 *NARST sponsored session for new researchers* [Symposium]. National Association for Research in Science Teaching.
- 2010 *Writing a competitive proposal for the National Science Foundation's (NSF) Division of Research on Learning in Formal and Informal Settings (DRL): Strategies and tips for novice and seasoned proposers* [Preconference workshop]. National Association for Research in Science Teaching.
- 2009 *Culturally relevant science teaching and learning* [Symposium]. American Educational Research Association.
- 2008 *The relationship between integrated science, language and literacy teaching, and student learning in diverse classrooms* [Symposium]. American Educational Research Association.
- 2008 *Bridging marginalized science stories, experiences, and meanings* [Symposium]. American Educational Research Association.
- 2005 *Science instruction for all: Responsive pedagogies in scientific inquiry development* [Symposium]. American Educational Research Association.
- 2005 *Navigating the academy: Critical issues for scholars of color* [Preconference workshop] (with M. Atwater and G. Solano-Flores). National Association for Research in Science Teaching.

- 2004 *Research and writing process for underrepresented scholars* [Preconference workshop] (with A. Rodriguez and O. Norman). National Association for Research in Science Teaching.
- 2003 *Increasing the capacity for change in districts with diverse student populations* [Symposium]. American Educational Research Association.
- 2003 *Science instruction for all: Promoting science and literacy for linguistically and culturally diverse elementary students* [Symposium]. American Educational Research Association.
- 2003 *The effects of power, culture, and discourse as they impact learners in science education* [Paper presentation]. American Educational Research Association.
- 2001 *Learning in two languages: Teaching and learning literacy and science in an urban elementary school* [Symposium]. American Educational Research Association.
- 2001 *Theoretical and empirical perspectives on urban science education* [Symposium]. National Association for Research in Science Teaching.
- 2000 *Grounded science: Making sense of urban science education with youth and teachers* [Symposium]. American Educational Research Association.
- 2000 *Inquiry-based science supported by technology* [Symposium]. American Educational Research Association.
- 2000 *Demystifying the research writing process for underrepresented scholars* [Professional development]. American Educational Research Association.
- 2000 *From good intentions to transformative action: Exploring the practical issues of teaching "science for all" in various school contexts* [Symposium]. National Association for Research in Science Teaching.
- 2000 *Science education for all? Examining connections/disconnections between theory and classroom practice and finally moving this idea from rhetoric toward reality—Part I* [Symposium]. National Association for Research in Science Teaching.
- 2000 *Designing and revising curriculum for diverse learners: Promoting scientific understandings through inquiry and embedded technologies* [Symposium]. National Association for Research in Science Teaching.
- 1999 *Organizational resources in support of teaching for understanding in mathematics and science* [Symposium]. American Educational Research Association.

1999 *Negotiated practices: Teaching, learning, and researching in science* [Paper presentation]. American Educational Research Association.

COURSES TAUGHT

2011-present	Steinhardt School of Culture, Education, and Human Development, New York University, New York, New York
	LANED-GE 2039 Advanced Individual Projects in Multilingual and Multicultural Studies
	CHDED-UE 1141 Integrated Curricula in Science, Health, and Mathematics in Childhood Education
	CHDED Student Teacher Supervision
1989-2011	School of Education, University of Miami, Coral Gables, Florida Taught undergraduate and graduate courses for Department of Educational and Psychological Studies (EPS) and Department of Teaching and Learning (TAL):
	EPS 553 Introduction to Educational Statistics
	EPS 605 Psychological Bases of Education
	EPS 650 Essentials of Educational Research
	EPS 651 Qualitative and Descriptive Research in Education
	TAL 103 Psychological Foundations of Education
	TAL 423 Science and Social Studies Instruction in the Elementary School
	TAL 444 Methods for Teaching Science in Secondary School
	TAL 501 Classroom-Based Measurement
	TAL 502 Classroom-Based Research
	TAL 519 Equity in Mathematics, Science, and Technology
	TAL 594 Workshop in Education: Middle School Science
	TAL 641 Curriculum Development for TESOL (team teaching)
	TAL 660 Theories and Applications of Instruction
	TAL 741 Doctoral Seminar on Teaching and Teacher Education in Mathematics and Science

DOCTORAL DISSERTATION AND MASTER'S THESIS COMMITTEES

2015-present Steinhardt School of Culture, Education, and Human Development,
New York University, New York, New York

Academic Advisor and Dissertation Chair

2. Leah Master (Department of Teaching and Learning)
1. Alison Haas (Department of Teaching and Learning; Co-Chair)

Dissertation Committee Member

2. Mo-yu Zhang (Department of Teaching and Learning)
1. Scott E. Grapin (Department of Teaching and Learning)

Outside Reader

2. Kat Adams (Department of Applied Psychology)
1. Jinjoo Han (Department of Teaching and Learning)

Outside Member at Other Institutions

2. Emily Adah (College of Education, University of Wisconsin–Madison)
1. Julio Lopez-Ferrao (School of Education, George Mason University)

1990-2014

School of Education, University of Miami, Coral Gables, Florida

Academic Advisor and Dissertation Chair

4. Georgina Lindskoog (Department of Teaching and Learning)
3. Brandon Diamond (Department of Teaching and Learning)
2. Alexandra Santau (Department of Teaching and Learning)
1. Carolyn Thurmond (Department of Teaching and Learning)

Dissertation Committee Member (listed alphabetically)

28. Adamson, Karen (Teaching and Learning)
27. Alexander, Karlene (Teaching and Learning)
26. Brammer, Norman (Higher Education)
25. Caballero, Alexander (Educational Leadership)
24. Campbell, Aubrey (Teaching and Learning)
23. Chesley, Josephine (Educational Leadership)
22. DeNight, Shawn (Teaching and Learning)
21. Elliott, Marcella (Teaching and Learning)
20. Forgan, Jim (Special Education and Reading)
19. Francisco, Janet (Teaching and Learning)
18. Giroux, Valerie (Educational Leadership)
17. Hathcock, Francis (Educational Leadership)
16. Hughes, Marie (Special Education and Reading)
15. Karp, Martin, S. (Educational Leadership)
14. King, Stephanie (Teaching and Learning)
13. Linn, Lorraine (Teaching and Learning)
12. Ma, Li (Teaching and Learning)
11. Maerten-Rivera, Jaime (Research, Measurement, and Evaluation)
10. Marquard, Kenneth, R. (Special Education and Reading)
9. Powers, Kathy (Special Education and Reading)
8. Rassi, Loudes, C. (Educational Leadership)
7. Salinas, Alejandra (Teaching and Learning)
6. Saumell, Linda (Special Education and Reading)
5. Sharpe, Sheree (Teaching and Learning)
4. Skaruppa, Cindy (Educational Leadership)
3. Vandiver, Fran (Educational Leadership)

2. Walsh-Minor, Regina (Higher Education)
1. Whitely, Patricia (Educational Leadership)

1992-2014

Outside Reader

6. Shaunna Donaher (Meteorology and Physical Oceanography)
5. Shiunn-Hyuan Luoh (Master's thesis in School of Communication)
4. Wilson R. Palacios (Master's thesis in Department of Sociology)
3. M. D. Reed (Master's thesis in School of Communication)
2. Marcus R. Kronforst (Senior thesis)
1. Hallee N. Zaslavsky (Senior thesis)

SERVICE TO NEW YORK UNIVERSITY

2022-present	Co-Chair, Dean's Promotion and Tenure Committee, Steinhardt School of Culture, Education, and Human Development
2021-present	Department of Teaching and Learning Doctoral Committee, Steinhardt School of Culture, Education, and Human Development
2018-present	Department of Teaching and Learning Promotion and Tenure Committee, Steinhardt School of Culture, Education, and Human Development
2022	Dean's Advisory Group for Innovation, Steinhardt School of Culture, Education, and Human Development
2018-2022	Dean's Promotion and Tenure Committee, Steinhardt School of Culture, Education, and Human Development
2021	Presentation for NYU faculty: <i>Demystifying the Review Process at the National Science Foundation</i>
2019-2020	Faculty First Look Mentor, Steinhardt School of Culture, Education, and Human Development
2019-2020	Dean Search Committee, Steinhardt School of Culture, Education, and Human Development
2019	Associate to Full Professor Workshop, Steinhardt School of Culture, Education, and Human Development
2018	Discussion panel, <i>Fundraising Fundamentals: The Importance of Fundraising From Government, Corporate and Private Foundations</i> , sponsored by Steinhardt School of Culture, Education, and Human Development
2018	Workshop facilitator, <i>A New Professional Development Opportunity—The Steinhardt Pilot Grant Writing Workshops</i> , sponsored by Steinhardt School of Culture, Education, and Human Development

2017-2018	Co-Chair, Peter L. Agnew Professor of Education Chair Search Committee, Steinhardt School of Culture, Education, and Human Development
2017	Faculty spotlight presentation at the faculty meeting of Steinhardt School of Culture, Education, and Human Development
2017	Grant writing presentation, sponsored by the Office of Research at Steinhardt School of Culture, Education, and Human Development
2017	IES discussion panel, sponsored by the Office of Research at Steinhardt School of Culture, Education, and Human Development
2014-2017	Promotion and Tenure Committee, Department of Teaching and Learning
2013-2017	Co-Chair, Doctoral Committee, Department of Teaching and Learning, Steinhardt School of Culture, Education, and Human Development
2014-2015	Music Education Search Committee, Steinhardt School of Culture, Education, and Human Development
2014-2015	Childhood Education and Multilingual and Multicultural Studies Search Committee, Department of Teaching and Learning
2014	Attendance at New York University Korean Alumni Association event in South Korea
2014	Dean's Convocation for New Undergraduate Students, Steinhardt School of Culture, Education, and Human Development
2014	Faculty Speaker at Baccalaureate Commencement Ceremony, Steinhardt School of Culture, Education, and Human Development
2013-2014	Dean Search Committee, Steinhardt School of Culture, Education, and Human Development
2013-2014	Search Committee for Multilingual and Multicultural Studies, Department of Teaching and Learning
2013	<i>NSF Grant Funding</i> , sponsored by the Office of Research and Doctoral Studies at Steinhardt School of Culture, Education, and Human Development
2012-2013	Search Committee for Music Education, Steinhardt School of Culture, Education, and Human Development

2011-2013 Teacher Education Working Group, Steinhardt School of Culture, Education, and Human Development

2011-2013 Cabinet for the Department of Teaching and Learning

SERVICE TO THE UNIVERSITY OF MIAMI

2010 Grand Marshall for Commencement Ceremony

2010 Provost's Award for Scholarly Activity Selection Committee

Note: The Committee selected three to five faculty members for University-wide awards based on research productivity.

2008-2010 University of Miami Fellows Selection Committee

Note: The Committee selected incoming doctoral students for University-wide fellowship awards.

2007-2010 School of Education Research Policy Committee, School of Education

2006-2007 Search Committee for the Associate Provost and Dean of Graduate School

2004-2007 School Council, School of Education

2006 Search Committee for the Dean of the School of Education

2000-2003 Committee for the School of Education Research Center, School of Education

1999-2001 Strategic Planning Committee for the Library

1999-2001 Faculty Diversity Recruitment Committee, School of Education

1999-2001 School Council, School of Education

1994-2000 English to Speakers of Other Languages/Bilingual Education Committee, Department of Teaching and Learning

1993-2000 Undergraduate Secondary Education Committee, Department of Teaching and Learning

1999 Chair, Task Force on Improving the Quality and Visibility of the School's Research, School of Education

1998-1999 Chair, Ad Hoc Committee on Funded Projects, Department of Teaching and Learning

- 1998-1999 Search Committee for the Department of Teaching and Learning
- 1996-1997 Chair, Doctoral Programs Committee, Department of Teaching and Learning
- 1996-1997 Chair, Search Committee for the Chairperson of the Department of Teaching and Learning
- 1994-1995 Preparation of the *Conceptual Framework/Knowledge Base* document for the National Council for Accreditation of Teacher Education review
- 1994-1995 Preparation of the folio for the Undergraduate Secondary Science Education Program to the Florida Department of Education
- 1992 Preparation of a comprehensive report on the faculty and student affairs during the 1987-1992 academic years in the School of Education

COMMUNITY SERVICE

- 2011, 2012, 2013 Judge, Miami-Dade Public Schools Elementary School Science Fair, Miami, FL
- Note:* The P-SELL project received a certificate of appreciation for its contribution to improving science education in the school district.
- 1998 Judge, MCI International Scholar Awards, Miami, FL
- 1991-1992 Newspaper Columnist, *Korean-American Journal*, a 20,000-circulation newspaper serving Korean readers in Florida, contributed twice-monthly columns on education issues

January 1, 2023