

# CURRICULUM VITAE

## OKHEE LEE

### WORK ADDRESS

Department of Teaching and Learning  
Steinhardt School of Culture, Education,  
and Human Development  
New York University  
239 Greene Street, Room 620  
New York, NY 10003  
(212) 998-5882  
olee@nyu.edu

### HOME ADDRESS

4 Washington Square Village, Apt 6L  
New York, NY 10012  
(786) 269-1945

<https://steinhardt.nyu.edu/people/okhee-lee>  
[https://en.wikipedia.org/wiki/Okhee\\_Lee](https://en.wikipedia.org/wiki/Okhee_Lee)  
[https://wikitia.com/wiki/Okhee\\_Lee](https://wikitia.com/wiki/Okhee_Lee)  
<https://www.okheele.com/>  
<https://www.nyusail.org/>

### PERSONAL INFORMATION

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

### EDUCATION

1984-1989 Michigan State University, East Lansing, MI.  
Ph.D. 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.  
M.A. in education with an emphasis on educational psychology and instructional design.

1977-1981 Kyungpook National University, South Korea.  
B.A. 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.

#### **ADMINISTRATIVE ROLES**

- 2011-2013 Coordinator, Childhood and Early Childhood for Undergraduate and Master's Programs, Department of Teaching and Learning, Steinhardt School of Culture, Education, and Human Development, New York University.
- 2008-2010 Committee Chair, Undergraduate Elementary Education Committee, Department of Teaching and Learning, School of Education, University of Miami.
- 1990-1991 Director of Undergraduate Advising, School of Education, University of Miami.

#### **REFEREED JOURNAL ARTICLES**

114. Lee, O. (in press). A call for an asset-oriented views of science and language with multilingual learners. *Journal of Research in Science Teaching*.

113. Grapin, S. E., Llosa, L., Haas, A., & Lee, O. (in press). Rethinking instructional strategies with English learners in the content areas in light of contemporary perspectives on content and language learning. *TESOL Journal*.
112. Haas, A., Goggins, M., Grapin, S. E., Januszyk, R., Llosa, L., & Lee, O. (in press). Developing instructional materials aligned to the Next Generation Science Standards for diverse student groups. *Journal of Science Teacher Education*.
111. Haas, A., Grapin, S. E., Simon, K., Llosa, L., & Lee, O. (in press). Integrating computational modeling into science instruction with English learners. *Science and Children*.
110. Lee, O. (2020). Science education for all students with a focus on second language learners: Instructional shifts to promote science and language learning. *Asian-Pacific Science Education*, 6, 263-284.
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.
108. Lee, O. (2020). Making everyday phenomena phenomenal: Using phenomena to promote equity in science instruction. *Science and Children*, 58(1), 56-61.
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.
106. Haas, A., Grapin, S. E., Wendel, D., Llosa, L., & Lee, O. (2020, November). How fifth-grade English learners engage in systems thinking using computational models. *Systems*.
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.
- Note:* See the video on the American Educational Research Association (AERA) website: <https://www.youtube.com/watch?v=RkDiOrNGuDs&feature=youtu.be>
- Note:* See the *Education Week* blog on this article: [http://blogs.edweek.org/edweek/learning-the-language/2019/10/for\\_english\\_learners\\_to\\_excel\\_more\\_collaboration\\_neededll.html](http://blogs.edweek.org/edweek/learning-the-language/2019/10/for_english_learners_to_excel_more_collaboration_neededll.html)
104. Lee, O., & Januszyk, R. (2019). Formative assessment of English language proficiency in the science classroom. *Science and Children*, 56(9), 80-85.
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.

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.
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.
100. Goggins, M., Haas, A., Grapin, S. E., Llosa, L., & Lee, O. (2019). Integrating crosscutting concepts into science instruction. *Science and Children*, 57(2), 56-61.
99. Lee, O. (2018). English language proficiency standards aligned with content standards. *Educational Researcher*, 47(5), 317-327.
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.
- Note:* See the *Education Week* blog on this article:  
[http://blogs.edweek.org/edweek/curriculum/2017/04/science\\_standards\\_common\\_core.html](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.
96. Lee, O., Llosa, L., Jiang, F., Haas, A., O'Connor, C., & Van Booven, C. (2016). Teachers' science knowledge and practices with English language learners. *Journal of Research in Science Teaching*, 53(4), 579-597.
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.
94. Caswell, L., Martinez, A., Lee, O., Berns, B., & Rhodes, H. (2016). Science and mathematics education with English language learners: Analysis of National Science Foundation Discovery Research K-12 funded projects and the broader fields. *Teachers College Record*, 118(5), 1-48.
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.
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.

91. Januszyk, R., Miller, E., & Lee, O. (2016). Addressing student diversity and equity. *Science Scope*, 39(8), 16-19.
90. Maerten-Rivera, J., Huggins, A. C., Adamson, K., Lee, O., & Llosa, L. (2015). Development and validation of a measure for elementary teachers' science content knowledge in two multiyear teacher professional development intervention projects. *Journal of Research in Science Teaching*, 52(3), 371-396.
89. Haas, A., Hollimon, S., & Lee, O. (2015). Science classroom assessment guide to analyze students' written responses. *Science and Children*, 53(3), 73-77.
88. Miller, E., Januszyk, R., & Lee, O. (2015). NGSS in action: Students explore patterns in the Earth's surface in this case study of English language learners. *Science and Children*, 53(2), 64-70.
87. Miller, E., Januszyk, R., & Lee, O. (2015). Engineering progressions in the NGSS diversity and equity case studies. *Science Scope*, 38(9), 27-30.
86. Llosa, L., Van Booven, C., & Lee, O. (2015). Teaching content standards to English language learners: Elementary science teachers' use of language development strategies and students' home language. *NYS TESOL Journal*, 2(2), 6-19.
85. Buxton, C. A., Salinas, A., Mahotiere, M., Lee, O., & Secada, W. G. (2015). Re-visioning fourth grade English language learners' scientific reasoning complexity, scientific inquiry practices, and science content knowledge. *Teachers College Record*, 117(2), 1-36.
84. Januszyk, R., Miller, E., & Lee, O. (2014). NGSS Appendix D and case studies on diverse student groups: Economically disadvantaged students developing conceptual models. *Science Scope*, 38(4), 6-11.
83. Lee, O., Miller, E., & Januszyk, R. (2014). Next Generation Science Standards: All standards, all students. *Journal of Science Teacher Education*, 25(2), 223-233.
82. Turkan, S., De Oliveira, L. C., Lee, O., & Phelps, G. (2014). Proposing the knowledge base for teaching academic content to English language learners: Disciplinary linguistic knowledge. *Teachers College Record*, 116(3), 1-30.
81. Maerten-Rivera, J., Myers, N., & 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.
80. Cone, N., Buxton, C. A., Mahotiere, M., & Lee, O. (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*, 39(2), 125-148.

79. Diamond, B. S., Maerten-Rivera, J., Rohrer, R. E., & Lee, O. (2014). Effectiveness of curricular and professional development intervention on elementary teachers' science content knowledge and student achievement outcomes: Year 1 results. *Journal of Research in Science Teaching*, 51, 635-658.
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.
- Note:* See the video on the American Educational Research Association (AERA) 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.
76. Lee, O., & Buxton, C. A. (2013). Integrating science learning and English language development for English language learners. *Theory Into Practice*, 52(1), 36-42.
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.
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: An International Journal of Research and Studies*, 32(1), 31-42.
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.
72. Lee, O., & Maerten-Rivera, J. (2012). Teacher change in elementary science instruction with English language learners: Results of a multi-year professional development intervention across multiple grades. *Teachers College Record*, 114(8), 1-44.
71. Emdin, C., & Lee, O. (2012). Hip-hop, the "Obama effect," and urban science education. *Teachers College Record*, 114(2), 1-24.
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.
69. Lee, O., & Buxton, C. A. (2011). Engaging culturally and linguistically diverse students in learning science. *Theory Into Practice*, 50(4), 277-284.

68. Adamson, K., Secada, W. G., Maerten-Rivera, J., & Lee, O. (2011). Measurement instruction in the context of scientific investigations. *School Science and Mathematics, 111*(6), 288-299.
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.
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.
65. Maerten-Rivera, J., Myers, N., Lee, O., & Penfield, R. D. (2010). Student and school predictors of high-stakes assessment in science. *Science Education, 94*(6), 937-962.
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.
63. Santau, A., Secada, W. G., Cone, N., Maerten-Rivera, J., & Lee, O. (2010). Urban elementary teachers' knowledge and practices: Relationships between science instruction and English language development. *International Journal of Science Education, 32*(15), 2007-2032.
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.
61. Lee, O., Penfield, R. D., & 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.
60. Lee, O., Maerten-Rivera, J., Buxton, C. A., Penfield, R. D., & Secada, W. G. (2009). Urban elementary teachers' perspectives on teaching science to English language learners. *Journal of Science Teacher Education, 20*(3), 263-286.
59. Kitchen, R. S., Roy, F. R., 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.
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.

57. Penfield, R. D., Alvarez, K., & Lee, O. (2009). 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.
56. 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.
55. Buxton, C. A., Lee, O., & Mahotiere, M. (2008). The role of language in academic and social transition of Haitian children and parents in urban U.S. schools. *Bilingual Research Journal*, 31, 47-74.
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.
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.
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.
51. Lee, O., Adamson, K., Maerten-Rivera, J., Lewis, S., LeRoy, K., & Thornton, C. (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.
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.
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.
48. Lee, O., Deaktor, R., Enders, C., & Lambert, J. (2008). Impact of a multi-year professional development intervention on science achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching*, 45(6), 726-747.
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.



46. **Lee, O.**, Lester, B., Li, M., Lambert, J., & Jean-Baptiste, M. (2007). Conceptions of the increased greenhouse effect and global warming among elementary students from diverse languages and cultures. *Journal of Geoscience Education*, 55(2), 117-125.
  45. Luykx, A., **Lee, O.**, Mahotiere, M., Lester, B., Hart, J., & Deaktor, R. (2007). Cultural and home language influence in elementary students' constructed responses on science assessments. *Teachers College Record*, 109(4), 897-926.
  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.
  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.
  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.
- Note:* This article was selected by the National Science Teachers Association (NSTA) Committee on Research in Science Education as one of 10 articles from the past 10 years that were recommended for teachers to read.
41. Lester, B. T., Ma, L., **Lee, O.**, & Lambert, J. (2006). Social activism in elementary science education: An STS approach in teaching global warming. *International Journal of Science Education*, 28(4), 315-339.
  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.
  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.
  38. **Lee, O.**, & Luykx, A. (2005). Dilemmas in scaling up innovations in science instruction with nonmainstream elementary students. *American Educational Research Journal*, 42(3), 411-438.
  37. **Lee, O.** (2005). Science education and English language learners: Synthesis and research agenda. *Review of Educational Research*, 75(4), 491-530.
  36. **Lee, O.** (2005). Science education and student diversity: Summary of synthesis and research agenda. *Journal of Education for Students Placed at Risk*, 10(4), 431-440.

35. **Lee, O.**, Hart, J., 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.
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.
33. Hart, J., & **Lee, O.** (2003). Teacher professional development to improve science and literacy achievement of English language learners. *Bilingual Research Journal*, 27(3), 475-501.
32. **Lee, O.** (2003). Equity for linguistically and culturally diverse students in science education: A research agenda. *Teachers College Record*, 105(3), 465-489.
31. **Lee, O.**, & Avalos, M. (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.
29. Thurmond, C. K., & **Lee, O.** (2000). Perceptions of scientific literacy and elementary teacher preparation held by science professors and science education professors. *Florida Journal of Educational Research*, 40(1), 5-27.
28. **Lee, O.**, & Paik, S. (2000). Conceptions of science achievement in major reform documents. *School Science and Mathematics*, 100(1), 16-26.
27. Paik, S., & **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 language and culture. *Communication Disorders Quarterly*, 21(1), 50-64.
25. **Lee, O.** (1999). Science knowledge, worldviews, and information sources in social and cultural contexts: Making sense after a natural disaster. *American Educational Research Journal*, 36(2), 187-219.
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.
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.

22. Paik, S., & 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.
20. Lee, O., & Fradd, S. H. (1998). Science for all, including students from non-English language backgrounds. *Educational Researcher*, 27(4), 12-21.
19. Lee, O. (1997). Diversity and equity for Asian American students in science education. *Science Education*, 81, 107-122.
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.
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: An International Research Journal*, 8, 269-297.
12. Lee, O., & Fradd, S. H. (1996). Literacy skills in science performance among culturally and linguistically diverse students. *Science Education*, 80(6), 651-671.
11. Lee, O., & Brophy, J. (1996). Motivational patterns observed in sixth-grade science classrooms. *Journal of Research in Science Teaching*, 33(3), 303-318.
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.

9. Fradd, S. H., & Lee, O. (1995). Science for all: A promise or a pipe dream? *Bilingual Research Journal*, 19(2), 261-278.
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.
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.
5. Lee, O., & Porter, A. C. (1993). A teacher's bounded rationality in middle school science. *Teaching and Teacher Education*, 9(4), 397-409.
4. Lee, O., Eichinger, D., Anderson, C. W., Berkheimer, G. D., & Blakeslee, T. C. (1993). Changing middle school students' conceptions of matter and molecules. *Journal of Research in Science Teaching*, 30(3), 249-270.
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.
2. Contreras, A., & Lee, O. (1990). Differential treatment of students by middle school science teachers: Unintended cultural bias. *Science Education*, 74(4), 433-444.
1. Lee, O., & Porter, A. C. (1990). Bounded rationality in the classroom. *Educational Psychologist*, 25(2), 159-171.

### **BOOKS**

5. Nordine, J., & Lee, O. (Eds.). (2021). *Crosscutting concepts: Strengthening science and engineering learning*. Alexandria, VA: National Science Teaching Association.
4. Lee, O., Miller, E., & Januszyk, R. (Eds.). (2015). *NGSS for all students*. Arlington, VA: 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*. New York, NY: Springer.

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

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

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

*Reviews:*

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

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

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

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

Wellik, J. (2011). *National Science Teachers Association* (posted on 1/24/2011).

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

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

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

### **HANDBOOK CHAPTERS**

5. Buxton, C. A., & **Lee, O.** (in progress). 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). Mahwah, NJ: 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). Mahwah, NJ: 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). Washington, DC: 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). New York, NY: Macmillan.

**BOOK CHAPTERS**

30. Goggins, M., Haas, A., Grapin, S. E., Januszyk, R., Llosa, L., & Lee, O. (in press). 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*. Alexandria, VA: National Science Teaching Association.
29. Nordine, J., & Lee, O., & Willard, T. (in press). Conclusions. In J. Nordine & O. Lee (Eds.), *Crosscutting concepts: Strengthening science and engineering learning*. Alexandria, VA: National Science Teaching Association.
28. Nordine, J., & Lee, O. (in press). What are crosscutting concepts and why are they useful? In J. Nordine & O. Lee (Eds.), *Crosscutting concepts: Strengthening science and engineering learning*. Alexandria, VA: 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). Charlotte, NC: 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). New York, NY: 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-Snider (Eds.), *Teaching science to English learners: Research into practice* (pp. 15-30). New York, NY: 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-Snider (Eds.), *Teaching science to English learners: Research into practice* (pp. 31-51). New York, NY: 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). Alexandria, VA: 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). Arlington, VA: 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). Arlington, VA: 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). Arlington, VA: 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). Arlington, VA: 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). Arlington, VA: 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 (STEM)* (pp. 98-102). Thousand Oaks, CA: 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). Bloomington, IN: 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). New York, NY: 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). Charlotte, NC: 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). Arlington, VA: 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). Arlington, VA: 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). Rotterdam, The Netherlands: 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). Lanham, MD: 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). Rotterdam, The Netherlands: 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). Arlington, VA: 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). Mahwah, NJ: 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). Providence, RI: 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). Dordrecht, The Netherlands: 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). Boston, MA: 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). Pasadena, CA: 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). Bloomington, IN: 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). Albany, NY: State University of New York Press.

### **EDITORIALS AND INVITED JOURNAL ARTICLES**

32. Campbell, D. T., & **Lee, O.** (2021). Teaching science to address societally pressing phenomena and challenges. *PBS Thinkalong Blog*. <https://thinkalong.org/teaching-science-to-address-pressing-phenomena/>
31. **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 (AAAS) 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/>
30. Campbell, D. T., **Lee, O.**, Murray, E., & Russel, J. (2021). *Are there differences in how people are affected by the COVID-19 Pandemic in the US? If so, why are there differences and what should we do about the disproportionate impact of COVID-19?* Daily Do: National Science Teaching Association. <https://www.nsta.org/lesson-plan/are-there-differences-how-people-are-affected-covid-19-pandemic-united-states-if-so-why>
29. Campbell, D. T., & **Lee, O.** (2020). How can we make informed decisions to keep ourselves and our communities safe during the COVID-19 pandemic? Daily Do: National Science Teaching Association. <https://www.nsta.org/lesson-plan/how-can-we-make-informed-decisions-keep-ourselves-and-our-communities-safe-during-covid>
28. **Lee, O.** (2020, August 27). Making everyday phenomena phenomenal. Retrieved from National Science Teaching Association website: <https://www.nsta.org/blog/local-phenomena>
27. **Lee, O.** (2019, March 21). Contemporary instructional approaches to promote STEM learning for English learners [Web blog post]. Retrieved from National Science Teachers Association website: <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. Retrieved from National Science Teachers Association website: <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 [Web log post]. Retrieved from National Science Teachers Association website: <http://nstacommunities.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*. Retrieved from New York University website: <https://steinhardt.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 [Web log post]. Retrieved from National Science Teachers Association website: <http://nstacommunities.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*. Retrieved from Education Dive website: <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, September). *How can educational systems better serve English learners?* New York, NY: New York University Education Solution Initiative.
20. **Lee, O.** (2015, May 20). NGSS for all students [Web log post]. Retrieved from National Science Teachers Association website: <http://nstacommunities.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). Philadelphia, PA: 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). Philadelphia, PA: 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). Thousand Oaks, CA: 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). New York, NY: 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 (Ed.), *Moving the equity agenda forward: Equity research, practice, and policy in science education* (pp. 127-129). New York, NY: Springer.
11. **Lee, O.**, & Buxton, C. A. (2010, April). Teaching science to English language learners. *NSTA Reports!* Retrieved from <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**

7. Bell, P., Suárez, E., Buxton, C., 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, CA: Stanford University Understanding Language Initiative.
5. **Lee, O.** (2007). *Science achievement gaps: Race/ethnicity, culture, and socioeconomic status*. Fairfax, VI: 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*. Madison, WI: University of Wisconsin 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*. Tallahassee, FL: 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). Tallahassee, FL: 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*. East Lansing, MI: Michigan State University Institute for Research on Teaching.

**COMMITTEE DOCUMENTS**

9. Broadening Participation Subcommittee of the Advisory Committee of the Education and Human Resources Directorate at the National Science Foundation. (2021). *Metrics for monitoring broadening participation efforts in National Science Foundation programs*. National Science Foundation, Arlington, VA.

*Note:* As Chair of the Subcommittee, I lead writing the report.

8. National Academies of Sciences, Engineering, and Medicine. (2018). *English learners in STEM subjects: Transforming classrooms, schools, and lives*. Washington, DC: National Academies Press. (Committee on Supporting English Learners in STEM Subjects, National Research Council.)

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*. Washington, DC: Achieve, Inc.

*Note:* Co-author of seven case studies as part of *Next Generation Science Standards: All Standards, All Students*:

1. *Economically disadvantaged students*
  2. *Students from major 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*. Washington, DC: National Academies Press.
  5. Pimentel, S., Castro, M., Cook, G., Kibler, A., **Lee, O.**, Pook, D., . . . Walqui, A. (2012). *Framework for English language proficiency development standards corresponding to the Common Core State Standards and the Next Generation Science Standards*. Washington, DC: Council of Chief State School Officers.
  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*. Portland, OR: Northwest Regional Educational Laboratory.
  3. Ballantyne, K. G., Sanderman, A. R., & Levy, J. (2008). *Educating English language learners: Building teacher capacity roundtable report*. Washington, DC: National Clearinghouse for English Language Acquisition.
  2. National Research Council. (2007). *Taking science to school: Learning and teaching science in grades K-8*. Washington, DC: National Academies Press. (Committee on Science Learning, Kindergarten Through Eighth Grade, National Research Council.)
  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*. Washington, DC: 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/integrating-science-and-language-all-students-focus-english-language-learners>

Introduction and seven sets of webinars and briefs on the following topics:

**Lee, O.** Introduction.

**Lee, O.** Unpacking the New York State P-12 Science Learning Standards.

**Lee, O.** Science and language with English language learners.

Haas, A., Grapin, S. E., Llosa, L., & **Lee, O.** Science instructional shifts.

- Grapin, S. E., Haas, A., Llosa, L., & Lee, O. Language instructional shifts.  
 Llosa, L., Haas, A., Grapin, S. E., & Lee, O. A classroom example.  
 Llosa, L., Grapin, S. E., & Haas, A. Science and language assessment shifts.  
 Llosa, L., Grapin, S. E., & Haas, A. Formative assessment in the science classroom.

### **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, NY: New York University.  
<https://www.nyusail.org>

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

*Note:* Achieve 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, NY: 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) middle school science (student book and teacher guide)*. Coral Gables, FL: University of Miami.
3. Lee, O., Buxton, C. A., LeRoy, K., & Secada, W. G. (2008). *Promoting science among English language learners (P-SELL) science (student books and teacher guides)*. Coral Gables, FL: University of Miami. (A series of nine science curriculum units for third, fourth, and fifth grade, including *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). East Lansing, MI: 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). East Lansing, MI: 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 Fick, S. J., Nordine, J., & McElhaney, K. W. (Eds.), *Proceedings of the Summit for Examining the Potential for Crosscutting Concepts to Support Three-Dimensional Learning*. Charlottesville, VA: University of Virginia. Retrieved from <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, Detroit, MI. 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*. Somerville, MA: Cascadilla Press.

**FOREWORDS AND ENDORSEMENTS**

6. **Lee, O.** (2017). Endorsement of Gottlieb, M., & Castro, M., *Language power: Key uses for accessing content*. Thousand Oaks, CA: Corwin Press.
5. **Lee, O.** (2016). Foreword in Lyon, E. G., Tolbert, S., Solís, J., Stoddart, T., & Bunch, G., *Secondary science teaching for English learners: Developing supportive and responsive learning contexts for sense-making and language development* (pp. vii-ix). Lanham, MD: Rowman & Littlefield.
4. **Lee, O.** (2015). Endorsement of Heritage, M., Walqui, A., & Linqunti, R., *English language learners and the new standards: Developing language, content knowledge, and analytical practices in the classroom*. Cambridge, MA: Harvard Educational Press.
3. **Lee, O.** (2008). Foreword in Bruna, K. R., & Gomez, K. (Eds.), *Talking science, writing science: The work of language in multicultural classrooms* (pp. viii-xi). Mahweh, NJ: Taylor and Francis.
2. **Lee, O.** (2000). Foreword in Sweeny, A. E., & Tobin, K. G. (Eds.), *Language, discourse, and learning in science: Improving professional practice through action research* (pp. 9-11). Tallahassee, FL: Southeastern Regional Vision for Education.

1. **Lee, O.** (2000). Foreword in Cobern, W. W., *Everyday thoughts about nature: An interpretive study of 16 ninth graders' conceptualizations of nature*. Dordrecht, The Netherlands: 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.

### **EVALUATION AND RESEARCH REPORTS**

13. **Lee, O.** (2004). *Science and literacy in the context of Haitian students' home language and culture*. Grant funded by an anonymous foundation.
12. Secada, W. G., & **Lee, O.** (2003). *A study of highly effective USI schools in the teaching of mathematics and science: Classroom level results*. Washington, DC: The Urban Institute.
11. Schumm, J., **Lee, O.**, Bessell, A. G., Burke, M. C., & Rivers, A. (2003). *The final evaluation report for the South Florida Annenberg Challenge*. Grant funded by the South Florida Annenberg Challenge, 1998-2003. Coral Gables, FL: University of Miami.
10. Schumm, J., **Lee, O.**, Bessell, A. G., Ioannone, P., Ferris, V., Rivers, A., . . . Deaktor, R. (2002). *The 2002 evaluation report for the South Florida Annenberg Challenge*. Grant funded by the South Florida Annenberg Challenge, 1998-2003. Coral Gables, FL: University of Miami.
9. Schumm, J., **Lee, O.**, Bessell, A., Ferris, V., Ioannone, P., Deaktor, R., & Galloway, F. (2001). *The 2001 evaluation report for the South Florida Annenberg Challenge*. Grant funded by the South Florida Annenberg Challenge, 1998-2003. Coral Gables, FL: University of Miami.
8. **Lee, O.**, & Avalos, M. (2000). *Program evaluation report for bilingual beginnings for teachers and students, 1998-2000*. Grant funded by the U.S. Department of Education Office of Bilingual Education and Minority Languages Affairs, 1998-2000, #T195A980083. Coral Gables, FL: University of Miami.
7. **Lee, O.**, & Avalos, M. (2000). *Program evaluation report for biliteracy for beginning teachers, 1998-2000*. Grant funded by the U.S. Department of Education Office of Bilingual Education and Minority Languages Affairs, 1998-2000, #T195A980052. Coral Gables, FL: University of Miami.
6. Schumm, J., **Lee, O.**, Bessell, A., Rangel, A., & Barza, L. (2000). *The 2000 evaluation report for the South Florida Annenberg Challenge*. Grant funded by the South Florida Annenberg Challenge, 1998-2003. Coral Gables, FL: University of Miami.



5. Schumm, J., Lee, O., Bessell, A., Jean-Francois, J., Rangel, A., Barza, L., & Shaffer, K. (1999). *The 1999 evaluation report for the South Florida Annenberg Challenge: Case studies*. Grant funded by the South Florida Annenberg Challenge, 1998-2001. Coral Gables, FL: University of Miami.
4. Gorrell, J., Shannon, D., Ares, N., Lee, O., & Miller, E. (1998). *Year-one evaluation report for the South Florida Annenberg Challenge*. Grant funded by the South Florida Annenberg Challenge, 1998-2001. Auburn, AL: Auburn University.
3. Lee, O., & Fradd, S. H. (1996). *Program evaluation report for the Master's ESOL Training Project: 1994-1996*. Grant funded by the U.S. Department of Education Office of Bilingual Education and Minority Languages Affairs, 1994-1996, #T195R40146. Coral Gables, FL: University of Miami.
2. Lee, O., & Fradd, S. H. (1995). *Program evaluation report for the Master's ESOL Training Project: 1994-1995*. Grant funded by the U.S. Department of Education Office of Bilingual Education and Minority Languages Affairs, 1994-1996, #T195R40146. Coral Gables, FL: University of Miami.
1. Lee, O., & Fradd, S. H. (1995). *Final evaluation report for the Master's Degree in TESOL Training and Certification Project*. Grant funded by the U.S. Department of Education Office of Bilingual Education and Minority Languages Affairs, 1991-1995, #T0003R10015. Coral Gables, FL: University of Miami.

### **FUNDED PROJECTS**

- |           |   |
|-----------|---|
| 2020-2024 | <b>Principal Investigator</b> , 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).    |
| 2020-2022 | <b>Co-Principal Investigator</b> , STEM identities and K-career pathways of immigrant youth of color (with Hua-Yu Sebastian Cherng as PI, Stella Flores, Okhee Lee, and Sumie Okazaki as Co-PIs at New York University; Amy Hsin as Co-PI at CUNY Queens College). National Science Foundation Division of Undergraduate Education (\$300,000). |
| 2019-2020 | <b>Project Director</b> , Supporting statewide leadership for implementation of New York State P-12 Science Learning Standards with English language learners. New York State Education Department (\$49,755).  |
| 2017-2022 | <b>Principal Investigator</b> , Science and Integrated Language Plus Computational Thinking and Modeling With English Learners (with Eric Klopfer as Co-PI at MIT, Lorena Llosa as Co-PI at NYU, and Corey Brady as Co-PI at Vanderbilt University). National Science Foundation Division of Research on Learning (\$2.5 million).              |

- 2018-2019 **Project Director**, New York State Science Learning Standards (NYSSLS) With a Focus on ELLs Professional Learning Cycle. New York City Department of Education (\$15,000).
- 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).
- 2017-2018 **Co-Principal Investigator**, Capitalizing on Aircraft Air and Noise Pollution: Transforming Deficits Into Assets (with Tae Hong Park as PI). 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). 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). U.S. Department of Education Office of Bilingual and Minority Languages Affairs (\$975,394).
- 1998-2001 **Co-Principal Investigator and Project Evaluator**, Bilingual Literacy for Beginning Teachers–1st Year Program (with Sandra H. Fradd as PI). 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). 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). Eisenhower Funding for Florida Region 6 Higher Education Consortium Florida Department of Education (*Note*: Competition each year:  
                   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). 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 and Frank X. Sutman as Co-PI). 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). U.S. Department of Education Office of Bilingual and Minority Languages Affairs (\$607,000).
- 1993-1995 **National Academy of Education Spencer Post-Doctoral Fellow**, Children's Views of the World in Social and Cultural Contexts. National Academy of Education Spencer Post-Doctoral 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). 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). 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). 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). 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). University of Miami School of Business Administration (\$6,500).

### **FELLOWSHIPS**

- Summer 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 Post-Doctoral 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 (October 1994). 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.

### **AWARDS AND HONORS**

- 2020 NSTA Distinguished Service to Science Education Award from the National Science Teaching Association.
- 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.
- 2015-2020 RHSU Edu-Scholar Public Influence Rankings: 2020 (120), 2019 (106), 2018 (86), 2017 (77), 2016 (121), 2015 (110).
- 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*. Arlington, VA: National Science Teachers Association. *Note*: This was supported by the Next Generation Science Standards at 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*: This 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.

### **EDITORIAL BOARDS**

- 2015-present *Journal of Teacher Education*
- 2008-present *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**

- 2020-present Buxton, C. A., & Lee, O. (in progress). 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 Lee, O., & Campbell, D. T. (in progress). Instructional materials aligned to *A Framework for K-12 Science Education* and the Next Generation Science Standards [Special issue]. *Journal of Science Teacher Education*.
- 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.). Mahwah, NJ: 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 [Special issue]. *Journal of Research in Science Teaching*, 38(5).

### **REVIEWER ROLES**

2015, 2018, 2019 Grant proposals submitted to Institute of Education Sciences, U.S. Department of Education.

2011-present Grant proposals submitted to National Academy of Education/Spencer Dissertation Fellowship, Spencer Foundation.

1993-present Grant proposals submitted to various programs in the Directorate for Education and Human Resources, National Science Foundation.

1990-present Reviewer for the following peer-reviewed journals:  
*AERA Open*  
*American Educational Research Journal*  
*Bilingual Research Journal*  
*Cognition and Instruction*  
*Educational Evaluation and Policy Analysis*  
*Educational Psychologist*  
*Educational Researcher*  
*The Elementary School Journal*  
*International Journal of Mathematics and Science Education*  
*International Journal of Science Education*  
*Journal of Educational Psychology*  
*Journal of Research in Science Teaching*  
*Journal of Research on Educational Effectiveness*  
*Journal of Science and Technology*  
*Journal of Science Teacher Education*  
*Journal of Teacher Education*  
*Journal of the Learning Sciences*  
*Review of Educational Research*  
*Science Education*  
*Teachers College Record*  
*Teaching and Teacher Education*  
*TESOL Quarterly*  
*Urban Education*

2014-present Grant proposals submitted to William T. Grant Foundation.

1993-2008 Proposals submitted for presentation at the annual meeting of the National Association for Research in Science Teaching.

1990-2008 Proposals submitted for presentation at the annual meeting of the American Educational Research Association.

1990-1992 Grant proposals submitted to Dwight D. Eisenhower Mathematics and Science Higher Education Grants Program, Texas.

## **COMMITTEES**

### **NATIONAL**

2020-present Chair, Subcommittee on Broadening Participation, Advisory Committee for the Directorate of Education and Human Resources, National Science Foundation.

2019-2022 Advisory Committee for the Directorate of 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.

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.

2018-2021 Board of Trustees, Center for Applied Linguistics, Washington, DC.

2016-2022 Advisory Committee for the Directorate of Education and Human Resources, 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.
- 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 (Dade County USP). Grant funded by the National Science Foundation.

1994-1999 Advisory Board, Dade County Urban Systemic Initiative (Dade County USI). 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 (Florida SSI). Grant funded by the National Science Foundation.

#### **PANELS**

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.
- 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.
- 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.

### **INVITED SPEECHES**

- 2021 "STEM Education with Equity for a New Normal," New York State BOCES Mathematics and Science Group (May).
- 2021 "COVID-19 and Systemic Racism" (presenting with Todd Campbell), BSCS, CO (May).
- 2021 "COVID-19 and Social Justice: A Storyline for Promoting Transdisciplinary Knowledge Production to Connect STEM Learning to Societally Pressing Problems" (presenting with Todd Campbell), University of Hawai'i – West O'ahu (May).
- 2021 "Crosscutting Concepts: A Professional Book Study for K-12 Educators," National Science Teaching Association (NSTA) Professional Book Study:  
Session 1: May 13  
Session 2: May 20  
Session 3: May 27  
Session 4: June 3
- 2021 "STEM Education With Equity for 'A New Normal,'" College of Education and Human Development, Texas A&M (April).
- 2021 "Integrating Science and Language for All Students with a Focus on English Learners," National Science Education Leadership Association (April).
- 2021 "Doing Science, Using Language for Multilingual Learners / English Language Learners Series" (presenting with Theresa Ocol, Emily Kang, and Clara Bauler), New York City Department of Education:  
Session 1: Using phenomena (January).  
Session 2: Student-Driven Discussion (February).  
Session 3: Using Models to Explain (March).  
Session 4: Developing specialized language (April)

- 2021 “STEM Education and Equity,” Be Inspired: STEM in Your Future Classroom – 2021 Pre-Service Teacher STEM Conference, University of Northern Iowa (April).
- 2021 “Teaching Science to Address Societally Pressing Phenomena and Challenges: The COVID-19 Pandemic and Systemic Racism” (presenting with Todd Campbell), Council of State Science Supervisors (April).
- 2021 “Equity Call to Action,” OpenSciEd Research, Digital Promise, CA (March)
- 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 (March).
- 2021 “Transforming Science Learning: Teaching Science to Address Societally Pressing Phenomena and Challenges: The COVID-19 Pandemic and Systemic Racism,” National Science Teaching Association (NSTA) Transforming Science Learning Series (March).
- 2021 “Language and Culture in STEM Lesson Planning,” STEM4Real, CA (March).
- 2021 “Computational Thinking and Modeling Integrated Into Science Instruction” (presenting with Alison Haas), Oregon Science Teachers Association (March).
- 2021 “Integrating STEM and Language with All Students, Including Second Language Learners,” Korean Association of Science Education International Conference, South Korea (January).
- 2021 “Pursuing Diversity: The Words We Choose,” Community to Classroom Connections Webinar Series, Omaha Public Schools, NE (January).
- 2021 “The COVID-19 Pandemic and Systemic Racism: Creating a ‘New Normal’ for STEM Education with Social Justice for All Students” (presenting with Todd Campbell), Northern Arizona University (January).
- 2020 “COVID-19 and Systemic Racism: Creating a ‘New Normal’ for STEM Education,” For Master Teachers of Math and Science (December).
- 2020 “Integrating Science Learning, Language Learning, and Computational Thinking with All Students, Including English Learners” (presenting with Alison Haas), Oregon Science Teachers Association (November).
- 2020 “The COVID-19 Pandemic and Systemic Racism: Creating “A New Normal” for Science and STEM Education with Social Justice for All

- Students” (presenting with Todd Campbell), Connecticut Science Teachers Association (November)
- 2020 “How Instructional Shifts in STEM and Language Support Each Other for English Learners” (presenting with Harold Asturias), Council of Great City Schools BIRE Conference (November).
- 2020 “The COVID-19 Pandemic and Systemic Racism: Creating “A New Normal” for STEM Education with Social Justice for All Students” (co-presenting with Todd Campbell), Council of Great City Schools BIRE Conference (November).
- 2020 “Engaging All Students in Learning Science and Developing Language” (presenting with Emily Kang), New York State TESOL Conference (November).
- 2020 “ELP Standards Aligned to Content Standards: Shared Opportunities and Responsibilities,” New York State TESOL Conference (November).
- 2020 “Integrating STEM and Language with All Students, Including English Learners,” Science Teachers Association of Texas Virtual Conference (November).
- 2020 “How the NGSS Science Instructional Shifts and Language Instructional Shifts Support Each Other for English Learners,” STEMteachersExpo (First Annual), NY (October).
- 2020 “Making everyday phenomena phenomenal – Using phenomena to promote equity in science instruction,” Delaware Science Education Department (October).
- 2020 “Integrating STEM and Language with All Students, Including English Learners,” California Science Teachers Association Virtual Science Education Conference (October).
- 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 (October).
- 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 (October).
- 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, ICEQ 2020 (October).

- 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 (September).
- 2020 “Integrating Science Learning, Language Learning, and Computational Thinking with All Students, Including English Learners,” Inaugural STEM20: Virtual Event, National Science Teaching Association (July).
- 2020 “Multidisciplinary Convergence Teaching and Learning with All Students,” National Science Education Leadership Association (NSELA) Summer Leadership Institute (July).
- 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 (NSELA) Summer Leadership Institute (July).
- 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, NY (July).
- 2020 “STEM Education for All Students, Including English Learners,” Accelerate Learning, Inc./STEMscopes (June).
- 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, New York, NY (April).
- 2020 “Convergences and Divergences Across Content Areas,” Virtual Unconference, Nebraska Association of Teachers of Science, NE (April).
- 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, NY (April).

- 2020 “Integrating Science and Language with All Students, Including English Learners,” Hoosier Association of Science Teachers, Indianapolis, IN (February).
- 2020 “Science and Language Assessment of All students, Including English Learners,” Hoosier Association of Science Teachers, Indianapolis, IN (February).
- 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, Buffalo, NY (January).
- 2019 “Science and Language Integration With All Students, Including English Learners,” Quinnipiac University Science Teaching and Learning Center, Quinnipiac, CT (December).
- 2019 “Transforming Innovations into Reality in Science” (panel moderator), Science Teachers Association of New York State, Rochester, NY (November).
- 2019 “STEM – For All Students,” Connecticut Science Teachers Association, Southbury, CT (November).
- 2019 “Integrating Computational Thinking Into Science Learning for All Students,” by Alison Haas and Okhee Lee, Connecticut Science Teachers Association, Southbury, CT (November).
- 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 US National Academy of Engineering and Embassy of Sweden. Washington, DC (October).
- 2019 “Science and Language Assessment of All Students, Including English Learners,” Oregon Science Teachers Association, Eugene, OR (October).
- 2019 “STEM Education for All Students, Including English Learners,” Oregon Science Teachers Association, Eugene, OR (October).
- 2019 “Science and Language Assessment of All Students, Including English Learners,” Nebraska Association of Teachers of Science, Kearney, NE (September).
- 2019 “Engaging All Students in Science,” Nebraska Association of Teachers of Science, Kearney, NE (September).



- 2019 “English Learners in STEM Subjects,” Webinar for Oregon Science Teachers Association, OR (September).
- 2019 “English Learners in STEM Subjects,” STEM Forum & Expo Hosted by National Science Teachers Association, San Francisco, CA (July).
- 2019 “Science Education Initiative in Omaha Public Schools,” Omaha Public Schools, Omaha, NE (May).
- 2019 “Content Standards in STEM Subjects and Instructional Implications for English Learners,” Council of the Great City Schools, Fort Lauderdale, FL (May).
- 2019 “Opening Session: Framing the Conversation: Language and STEM with English Learners,” National Science Teachers Association Virtual Conference, Alexandria, VA (May).
- 2019 “Science and Language Assessment of All Students, Including English Learners,” Washington Association of Bilingual Education, Bellevue, WA (April).
- 2019 “STEM Education for All Students, Including English Learners,” Washington Association of Bilingual Education, Bellevue, WA (April).
- 2019 “Transforming the teaching of middle school science,” New York City Department of Education, NY (April).
- 2019 “Professional Development of the National Science Teachers Association Leadership and Staff,” Alexandria, VA (March).
- 2019 “English Learners in STEM Subjects: Virtual Book Study,” National Science Teachers Association, Alexandria, VA (January – February).
- 2019 “STEM education for All Students,” National Science Education Leadership Association Webinar. (February).
- 2019 “STEM Education for All Students, Including English Learners,” Omaha Public Schools, NE (January).
- 2019 “STEM Education for All Students, Including English Learners,” Lincoln Public Schools, NE (January).
- 2019 “Promising Instructional Strategies for Supporting English Learners in STEM Subjects,” National Research Council #ELSTEM Webinar (January).

- 2018 “STEM Education for All Students, Including English Learners,” Southern Methodist University, School of Education and Graduate Student Organization, Dallas, TX (November).
- 2018 “Science and Language Assessment of All Students, Including English Learners,” Virginia Association of Science Teachers, Williamsburg, VA (November).
- 2018 “Science for All: Instructional Shifts to Promote Science and Language Learning with All Students, Including English Learners,” Virginia Association of Science Teachers, Williamsburg, VA (November).
- 2018 “English Learners in STEM Subjects: Transforming Classrooms, Schools, and Lives,” National Research Council #ELSTEM Webinar (November).
- 2018 “English Learners in STEM Subjects: Transforming Classrooms, Schools, and Lives,” National Research Council and National Science Foundation, Arlington, VA (October)
- 2018 “Opening General Session: Using Phenomena to Promote Equity in Instruction,” National Science Teachers Association Virtual Conference, Alexandria, VA (July).
- 2018 “Science Education for All: Instructional Shifts to Promote Science and Language Learning,” National Science Education Leadership Association Summer Leadership Institute, Philadelphia, PA (July).
- 2018 “Integrating Science Learning and Computational Thinking With All Students, Including English Learners” with A. Haas and S. E. Grapin, National Science Education Leadership Association Summer Leadership Institute, Philadelphia, PA (July).
- 2018 “Science and Language Instruction and Assessment With All Students, Including English Learners” with S. E. Grapin and A. Haas, National Science Education Leadership Association Summer Leadership Institute, Philadelphia, PA (July).
- 2018 “Science for All: Instructional Shifts to Promote Science and Language Learning With All Students, Including English Learners,” Texas Regional Collaboratives Annual Meeting, Austin, TX (June).
- 2018 “Science and Language Assessment of All Students, Including English Learners,” Texas Regional Collaboratives Annual Meeting, Austin, TX (June).
- 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, Washington, DC (June).

- 2018 “Formative Assessment of Science and Language Learning With All Students, Including English Learners,” Michigan Math and Science Center, Lansing, MI (May).
- 2018 “Science for All: Instructional Shifts to Promote Science and Language Learning With All Students, Including English Learners.” Rhode Island Science Teacher Association, East Greenwich, RI (April).
- 2018 “Science and Language Assessment of All Students, Including English Learners,” Rhode Island Science Teacher Association, East Greenwich, RI (April).
- 2018 “Engaging All Students in Science,” National Science Teachers Association featured presentation, Atlanta, GA (March).
- Note:* See the video on the National Science Teachers Association (NSTA) website:  
<https://www.youtube.com/watch?v=3yTdlw9JKXQ>
- 2018 “Equity in Assessment,” Council of Science State Supervisors, Atlanta, GA (March).
- 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, New York, NY (January and March).
- 2017 “STEM for All: Instructional Shifts to Promote Science and Language Learning,” National Science Teachers Association Area Conference, New Orleans, LA (November).
- 2017 “Science for All: Promoting Equitable Science Teaching Practices to Support Student Learning,” Onondaga-Cortland-Madison Counties Board of Cooperative Educational Services Conference, Syracuse, NY (November).
- 2017 “ELP Standards Aligned With Content Standards: Shared Opportunities and Responsibilities,” WIDA Annual Conference, Tampa, FL (October).
- 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, Portland, OR (August).

- 2017 “The Changing World of Assessment With Student Diversity and Equity,” National Science Teachers Association National Congress on Science Education, Buffalo, NY (July).
- 2017 “Engaging All Students in Science,” National Science Teachers Association National Congress on Science Education, Buffalo, NY (July).
- 2017 “NGSS 3-Dimensional Learning and Assessment of Science and English Proficiency,” Hawaii Department of Education Science Kickstart, Honolulu, HI (July).
- 2017 “NGSS Instructional Shifts and Language Instructional Shifts Support Each Other With English Learners,” Hawaii Department of Education Science Kickstart, Honolulu, HI (July).
- 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, Washington, DC (June).
- 2017 “NGSS Instructional Shifts and Language Instructional Shifts Support Each Other,” California Alliance for Next Generation Science Standards, CA (June).
- 2017 “NGSS Instructional Shifts and Language Instructional Shifts Support Each Other With English Learners,” National Research Council Early STEM and Young Dual Language Learners, Washington, DC (May).
- 2017 “Science Standards,” New York State Board of Cooperative Educational Services Workshop, Schenectady, NY (May).
- 2017 “Science Initiative for English Learners Institute,” New York City Department of Education Division of English Language Learners and Student Support, New York, NY (May).
- 2017 “Equity, Inclusion, and Diversity,” National Research Council Educator Capacity Building Workshop, Washington, DC (April).
- 2017 “How Teachers and Parents Can Assist Korean Children's Language Development Through Mathematics and Science,” Korean American Teachers Association of New York, New York, NY (January).
- 2016 “NGSS With All Students, Including English Learners,” Biological Sciences Curriculum Study, Colorado Springs, CO (December).
- 2016 “ELP Standards and Content Standards: Language Instructional Shifts,” Arizona TESOL State Conference, Yuma, AZ (October).

- 2016 “NGSS With All Students, Including English Learners,” National Science Foundation Presidential Awards for Excellence in Mathematics and Science Teaching Symposium on Active Learning, Washington, DC (September).
- 2016 “NGSS With All Students, Including English Learners,” WGBT for PBS, Boston, MA (September).
- 2016 “Engineering is Elementary With All Students, Including English Learners,” Boston Museum of Science, Boston, MA (September).
- 2016 “NGSS Instructional Shifts Provide Opportunities for Language Learning,” Expansion of K-6 NGSS Instructional Specialist Program, Portland, OR (June).
- 2016 “Content and Language Learning Across Subject Areas With English Learners,” Stanford University Language, Equity, and Education Policy Working Group, Stanford, CA (May).
- 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, Grand Rapids, MI (April).
- 2016 “Next Generation Science Standards (NGSS): A Foundation,” Boards of Cooperative Educational Services of New York State, Albany, NY (March).
- 2016 “Next Generation Science Standards (NGSS): Science and Language,” Rutgers Graduate School of Education Brown Bag Lunch Talk, New Brunswick, NJ (February).
- 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, New York, NY (December).
- 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, Washington, DC (November).

- 2015 “Connections of NGSS to CCSS for All Students, Including English Language Learners,” National Science Teachers Association Conference, Reno, NV (October).
- 2015 “The Next Generation Science Standards: All Standards, All Students,” NGSS–Opportunities for Iowa Conference, Iowa City, IA (October).
- 2015 “STEM Equity and Needs of Disadvantaged Students in Rural Areas,” STEM Education Equity: Policies to Create Opportunities in Rural Iowa Conference, Iowa City, IA (October).
- 2015 “NGSS for All Students,” Delaware Department of Education, Dover, DE (July).
- 2015 “NGSS Three-Dimensional Learning and Language Use” Expansion of K-6 NGSS Instructional Specialist Program, Portland, OR (June).
- 2015 “Promoting Science Among English Language Learners (P-SELL) Scale-Up,” Sanibel Leadership Conference, Sanibel, FL (June).
- 2015 “Next Generation Science Standards and Common Core State Standards for English Language Learners,” Sanibel Leadership Conference, Sanibel, FL (June).
- 2015 “Effective Science Instruction for English Language Learners,” University of North Carolina, Wilmington, NC (June).
- 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, New York, NY (April).
- 2015 “Next Generation Science Standards (NGSS): All Standards, All Students,” Delaware NGSS Leadership Team Meeting, Dover, DE (March).
- 2015 “Next Generation Science Standards (NGSS): All Standards, All Students,” Mary C. McCurdy Lecture at the National Science Teachers Association Conference, Chicago, IL (March).
- 2015 “NGSS and CCSS for English Language Learners,” National Association for Bilingual Education Conference, Las Vegas, NV (March).
- 2015 “NGSS for Diversity and Equity,” Next Generation Science Standards Network Leadership Conference, San Francisco, CA (February).

- 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, San Francisco, CA (January).
- 2014 “Next Generation Science Standards,” Seoul National University, Seoul, South Korea (December).
- 2014 “General Closing Session: Next Generation Science Standards Practices in Action,” National Science Teachers Association Virtual Conference, Alexandria, VA (November).
- 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, Miami, FL (November).
- 2014 “Next Generation Science Standards: All Standards, All Students,” Washington Science Teachers Association, Spokane, WA (October).
- 2014 “Diversity and Equity in Science: All Standards, All Students,” New York Hall of Science, New York, NY (September).
- 2014 “A Review of DR K-12 English Language Learner Projects and Their Contribution to Research,” National Science Foundation Discovery Research K-12, Washington, DC (August).
- 2014 “Effective Science Instruction for English Language Learners,” University of Massachusetts at Boston and Center of Science and Mathematics in Context Summer Institute, Boston, MA (July).
- 2014 “Common Core and Next Generation Science Standards in the Dual Language Classroom: Implementation Strategies,” Dual Language Summer Institute, Kissimmee, FL (June).
- 2014 “Common Core and Next Generation Science Standards in the Dual Language Classroom: An Overview,” Dual Language Summer Institute, Kissimmee, FL (June).
- 2014 “Next Generation Science Standards for Diversity and Equity With a Focus on English Language Learners,” Equity Conversations: Updates in STEM Education K-12, Portland, ME (June).
- 2014 “Next Generation Science Standards: All Standards, All Students,” Merck Institute for Science Education, Rahway, NJ (May).

- 2014 “Culture and Language for Student Diversity,” STEMposium: Closing the Opportunity Gap in STEM Education Conference, Portland, OR (May).
- 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, Portland, OR (May).
- 2014 “Next Generation Science Standards for English Language Learners,” Language, Culture, and Identity Conference, Portland, ME (April).
- 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, Boston, MA (April).
- Note:* I also served as a coordinator of the conference and facilitator for discussion of panels.
- 2014 “Next Generation Science Standards: All Standards, All Students,” Science Teachers Association of New York State, New York, NY (March).
- 2014 “General Closing Session: Next Generation Science Standards Practices in Action,” National Science Teachers Association Virtual Conference, Alexandria, VA (February).
- 2014 “Next Generation Science Standards and Common Core: Engaging English Language Learners,” New York City–2/Long Island Region, Adelphi University, New York, NY (February).
- 2014 “Next Generation Science Standards: All Standards, All Students,” Merck Institute for Science Education, Rahway, NJ (February).
- 2014 “Next Generation Science Standards and Common Core: Engaging English Language Learners,” Western Washington University, Bellingham, WA (February).
- 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, Washington, DC (December).
- 2013 “Next Generation Science Standards: All Standards, All Students,” Lehman College, New York, NY (December).



- 2013 “Next Generation Science Standards for English Language Learners,” Palm Beach County Public Schools Multicultural Department, Palm Beach, FL (November).
- 2013 “Next Generation Science Standards: All Standards, All Students,” Super Science Saturday by Lee County Public Schools, Fort Myers, FL (November).
- 2013 “Next Generation Science Standards: All Standards, All Students,” Florida Association of Science Teachers Conference, Miami, FL (October).
- 2013 “Next Generation Science Standards: All Standards, All Students,” Florida Association of Science Supervisors Conference, Miami, FL (October).
- 2013 “Next Generation Science Standards: All Standards, All Students,” Maine Science Teachers Association Conference, Portland, ME (October).
- 2013 “Educating All Students: English Language Learners,” K-12 Educators in Professional Development Workshop, New York University, New York, NY (October).
- 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, Washington, DC (September).
- 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, CA (September).
- 2013 “Next Generation Science Standards for English Language Learners,” University of Illinois at Chicago Bilingual/ESL Teacher Training Summer Institute, Chicago, IL (June).
- 2013 “Supporting Learning in Diverse Science Classrooms,” Council of State Science Supervisors Building Capacity in State Science Education National Conference, Pittsburgh, PA (June).
- 2013 “Making NGSS Accessible to All Students,” Council of State Science Supervisors Building Capacity in State Science Education National Conference, Pittsburgh, PA (June).
- 2013 “Science and Language for English Learners,” Steinhardt School of Culture, Education, and Human Development Sci-Ed-Expo, New York University, New York, NY (May).

- 2013 “Next Generation Science Standards and Common Core State Standards for Diversity and Equity,” Stanford University Language, Equity, and Education Policy Working Group, Stanford, CA (April).
- 2013 “The Common State Standards: Potential Outcomes and Consequences in Relation to Student Diversity and Equity,” New York University Steinhardt Education Policy Breakfast Series, New York, NY (April).
- 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, San Antonio, TX (April).
- Note:* I also served as a coordinator of the conference and facilitator for discussion of panels.
- 2013 “Next Generation Science Standards: All Standards, All Students,” Council of State Science Supervisors Annual Meeting, San Antonio, TX (April).
- 2013 “Diversity and Equity in Science Education,” University of Arizona Annual Graduate Student Colloquy, Tucson, AZ (February).
- 2013 “Next Generation Science Standards for English Language Learners,” National Association of Bilingual Education Annual Meeting, Orlando, FL (February).
- 2012 “Language Demands and Opportunities in Relation to Next Generation Science Standards for English Language Learners,” California Accountability Leadership Institute, Santa Clara, CA (December).
- 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, Orlando, FL (October).
- 2012 “Next Generation Science Standards for English Language Learners,” Breakout Session with L. Meade, M. Milano, C. Negrón, and R. Zimmerman at the CREATE conference on English Learners in the Content Area Classes: Teaching for Achievement in the Middle Grades, Orlando, FL (October).
- 2012 “Next Generation Science Standards for English Language Learners,” New York City Department of Education Research-Based Educational Practices for English Language Learners Conference, New York, NY (June).

- 2012 “Promoting Science Learning and Language Development of English Language Learners,” Washington Association of Bilingual Education, Tacoma, WA (May).
- 2012 “Next Generation Science Standards for English Language Learners,” New York City Department of Education, New York, NY (May).
- 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, Indianapolis, IN (March).
- 2012 “Promoting Science Learning and Language Development of English Language Learners,” New Jersey Symposium on Common Core and English Language Learners, Union City, NJ (March).
- 2012 “Science and Language for English Language Learners,” New York State Association for Bilingual Education, Melville, NY (March).
- 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, Washington, DC (July).
- Note:* I also served as a coordinator of the roundtable and facilitator for discussion of panels.
- 2011 “Effective STEM Education Strategies for Diverse and Underserved Student Groups,” National Research Council Workshop on Successful STEM Education in K-12 Schools, Washington, DC (May).
- 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, Washington, DC (September).
- 2010 “Envisioning the Role of Trans-National Educational Researchers in Global Society,” Korean American Educational Researchers Association Annual Meeting, Denver, CO (May).
- 2009 “Promoting Science Among English Language Learners,” Council of the Great City Schools Annual Meeting, Minneapolis, MN (May).
- 2009 “The Knowledge Base for Science Education With English Language Learners,” International Reading Association Annual Meeting, Minneapolis, MN (May).

- 2008 “Methodological Issues in an Urban Study,” National Science Foundation Discovery Research K-12 Principal Investigators’ Meeting, Washington, DC (November).
- 2008 “Instructional Interventions to Promote Science Learning and English Language Development of English Language Learners,” National Superintendents’ Annual Forum, Miami, FL (October).
- 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, Oak Brook, IL (October).
- 2008 “Science Instruction With English Language Learners,” Miami-Dade County Public Schools, Miami, FL (September).
- 2008 “Science and Literacy for English Language Learners,” Literacy Institute sponsored by the National Geographic Society and Literacy Achievement Research Center, Washington, DC (July).
- 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, Coral Gables, FL (June).
- 2008 “The Knowledge Base for Science Education With English Language Learners,” Miami-Dade College Pathways to Excellence in Teaching Project, Miami, FL (May and June).
- 2008 “Science and Literacy for English Language Learners,” Raising the Bar on Science Instruction for ELLs Symposium for New York Public Schools, New York, NY (May).
- 2008 “Equity in Science Education,” American Educational Research Association Annual Meeting, New York, NY (March).
- 2007 “Inquiry-Based Science for English Language Learners,” U.S. Department of Education Annual Meeting, Washington, DC (October).
- 2006 & 2007 “What Does the Research Say?” National Science Foundation and National Science Teachers Foundation, Baltimore, MD (November 2006) and St. Louis, MO (March 2007).
- 2006 “Promoting Science Among English Language Learners,” Office of English Language Acquisition Celebrate Our Rising Stars Summit, Washington, DC (October).

- 2006 “Diversity and Science Education: What Research Says About English Language Learners,” Institute for Integrated Science at Miami University, Oxford, OH (April).
- 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, Chicago, IL (November 2005) and Anaheim, CA (April 2006).
- 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, College Park, MD (September).
- 2005 “Big Ideas in Science for English Language Learners and More,” University of Pittsburgh Institute for Learning, Learning Research and Development Center, Pittsburgh, PA (August 2005).
- 2003 “Measuring for Scale-Up in Education,” Conceptualizing Scale-Up: Multidisciplinary Perspectives Conference, Washington, DC (November).
- 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, Ann Arbor, MI (June).
- 2003 “Teaching Science to Culturally and Linguistically Diverse Students: Critical Issues and Promising Practices,” Mid-Atlantic Equity Center Annual Regional Conference, Washington, DC (March).
- 2002 “Science and Literacy for Linguistically Diverse Elementary Students,” Teachers College, Columbia University Urban Science Education Center, New York, NY (April).
- 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, CA (April).
- 2002 “Diversity and Teaching,” University of Miami Alumni Lecture Series, Coral Gables, FL (April).
- 2001 “Science for All Students,” National Science Foundation Southwest Regional Conference, San Antonio, TX (December).

- 2001 “Science Instruction for English Language Learners,” Florida Department of Education Bureau-Wide Education Conference, St. Petersburg, FL (October).
- 2001 “The Achievement Gap in Science and Mathematics Education,” National Science Foundation, Washington, DC (May).
- 2000 “Science Instruction for Culturally and Linguistically Diverse Students,” University of Illinois Project TAT One-Day Institute, Chicago, IL (June).
- 2000 “Equity for Culturally and Linguistically Diverse Students in Science Education: Recommendations for a Research Agenda,” National Institute for Science Education Forum, Detroit, MI (May).
- 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, Miami, FL (March).
- 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, Seoul, South Korea (May).
- 1996 “Science Literacy With Students From Diverse Languages and Cultures,” University of New York Bilingual and Second Language Education Research Symposium, Buffalo, NY (April).
- 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, Miami, FL. (June).
- Note:* In addition to making a keynote speech, I also served as the local coordinator of the conference.
- 1991 "Comparative Perspectives of Science Education in the United States and South Korea," Seoul National University Department of Physical Science Education, Seoul, South Korea (December).
- 1989 "Student Motivation to Learn," Miami-Dade Community College Department of Psychology and Education, Miami, FL (April).

### **DISCUSSANT**

2017

*Using NGSS to inform and provide equitable instruction, learning, and assessments to diverse students.* Poster session presented at the meeting of the American Educational Research Association, San Antonio, TX.

- 2013 *What's language got to do with it?* Paper session presented at the principal investigators' meeting, U.S. Department of Education Institute of Education Sciences, Washington, DC.
- 2011 *Advancing English language learners in science and math: Realizing the promise.* Roundtable conducted at the meeting of the American Educational Research Association, New Orleans, LA.
- 2011 *Language in the science classroom.* Paper session presented at the meeting of the American Educational Research Association, New Orleans, LA.
- 2011 *Advancing English language learners in science and math: Realizing the promise.* Symposium conducted at the meeting of the American Educational Research Association, New Orleans, LA.
- 2011 *Effective science teaching for English language learners.* Symposium conducted at the meeting of the American Educational Research Association, New Orleans, LA.
- 2010 *NARST sponsored session for new researchers.* Symposium conducted at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.
- 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.* Pre-conference workshop at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.
- 2009 *Culturally relevant science teaching and learning.* Symposium conducted at the meeting of the American Educational Research Association, San Diego, CA.
- 2008 *The relationship between integrated science, language and literacy teaching, and student learning in diverse classrooms.* Symposium conducted at the meeting of the American Educational Research Association, New York, NY.
- 2008 *Bridging marginalized science stories, experiences, and meanings.* Symposium conducted at the meeting of the American Educational Research Association, New York, NY.
- 2005 *Science instruction for all: Responsive pedagogies in scientific inquiry development.* Symposium conducted at the meeting of the American Educational Research Association, Montreal, Canada.

- 2005 *Navigating the academy: Critical issues for scholars of color.* Pre-conference workshop organized by M. Atwater, G. Solano-Flores, and O. Lee at the meeting of the National Association for Research in Science Teaching, Dallas, TX.
- 2004 *Research and writing process for underrepresented scholars.* Pre-conference workshop organized by O. Lee, A. Rodriguez, and O. Norman at the meeting of the National Association for Research in Science Teaching, Vancouver, Canada.
- 2003 *Increasing the capacity for change in districts with diverse student populations.* Symposium conducted at the meeting of the American Educational Research Association, Chicago, IL.
- 2003 *Science instruction for all: Promoting science and literacy for linguistically and culturally diverse elementary students.* Symposium conducted at the meeting of the American Educational Research Association, Chicago, IL.
- 2003 *The effects of power, culture, and discourse as they impact learners in science education.* Paper session presented at the meeting of the American Educational Research Association, Chicago, IL.
- 2001 *Learning in two languages: Teaching and learning literacy and science in an urban elementary school.* Symposium conducted at the meeting of the American Educational Research Association, Seattle, WA.
- 2001 *Theoretical and empirical perspectives on urban science education.* Symposium conducted at the meeting of the National Association for Research in Science Teaching, St. Louis, MO.
- 2000 *Grounded science: Making sense of urban science education with youth and teachers.* Symposium conducted at the meeting of the American Educational Research Association, New Orleans, LA.
- 2000 *Inquiry-based science supported by technology.* Symposium conducted at the meeting of the American Educational Research Association, New Orleans, LA.
- 2000 *Demystifying the research writing process for underrepresented scholars.* An extended course for professional development and training at the meeting of the American Educational Research Association, New Orleans, LA.
- 2000 *From good intentions to transformative action: Exploring the practical issues of teaching "science for all" in various school contexts.*



- Symposium conducted at the meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- 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 conducted at the meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- 2000 *Designing and revising curriculum for diverse learners: Promoting scientific understandings through inquiry and embedded technologies.* Symposium conducted at the meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- 1999 *Organizational resources in support of teaching for understanding in mathematics and science.* Symposium conducted at the meeting of the American Educational Research Association, Montreal, Canada.
- 1999 *Negotiated practices: Teaching, learning, and researching in science.* Paper session presented at the meeting of the American Educational Research Association, Montreal, Canada.

#### **CONFERENCE PRESENTATIONS**

148. Haas, A., Brady, C., Llosa, L., & Lee, O. (2021). *Using fifth-grade educative curriculum materials that integrates computational thinking and modeling into NGSS-aligned instruction.* Paper presented at the American Educational Research Association, virtual conference.
147. Flores, S. M., Cherng, H. S., Okazaki, S., Carroll, T., Hsin, A., Lee, C. & Lee, O. (2020, Apr 17 - 21) *Immigrant students and STEM pathways: Understanding locations of advantage and disadvantage* [Paper Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/tlfan5f> (Conference Canceled)
146. Haas, A. M., Grapin, S. E., Goggins, M., Llosa, L. & Lee, O. (2020, Apr 17 - 21) *Integrating computational thinking and modeling into Next Generation Science Standards–aligned elementary science curriculum with English learners* [Symposium]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/r57d5tx> (Conference Canceled)
145. Llosa, L., Grapin, S. E., Haas, A. M., Goggins, M. & Lee, O. (2020, Apr 17 - 21) *Teachers' use of formative assessments embedded within a Next Generation Science Standards–aligned science curriculum focused on English learners* [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/r46b7eh> (Conference Canceled)
144. Grapin, S. E., Llosa, L., Lee, O., & Weinberg, S. L. (2020, Apr 17 - 21) *Are we missing part of the picture? Multimodal assessment of English learners in science* [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/yx7nyns3>

(Conference Canceled)

143. **Lee, O.** (2019). *How the NGSS science instructional shifts and language instructional shifts support each other for English learners*. Paper presented at the meeting of the Science Teachers Association of New York State, Rochester, NY.
142. **Lee, O.**, Llosa, L., Haas, A., Goggins, M., & Grapin, S. E. (2019). *How the NGSS science instructional shifts and language instructional shifts mutually support each other for all students, including English learners*. Symposium at the meeting of the American Educational Research Association, Toronto, Canada.
141. Francis, D. J., **Lee, O.**, Solano-Flores, G., & Chaval, K. B. (2019). *English learners in STEM subjects: Transforming classrooms, schools, and lives – A report From the National Academies of Sciences, Engineering, and Medicine*. Invited Speaker Session at the American Educational Research Association, Toronto, Canada.
140. Goggins, M., Haas, A., Grapin, S. E., Llosa, L., & **Lee, O.** (2019). *Using crosscutting concepts to make sense of phenomena: Engaging diverse student groups in learning science*. Paper presented at the meeting of the American Educational Research Association, Toronto, Canada.
138. Haas, A., Grapin, S. E., Goggins, M., Llosa, L., & **Lee, O.** (2019). *A case study of one teacher's knowledge and beliefs about computational modeling with English learners*. Paper presented at the meeting of the American Educational Research Association, Toronto, Canada.
137. Hsiao, L., Anderson, E., and others, including **Lee, O.** (2018). *Integrating computational modeling into K-12 science classrooms*. Paper presented at the Connected Learning Summit, Cambridge, MA.
136. Haas, A., & **Lee, O.** (2018). *Integrating science learning and computational thinking with all students, including English learners*. Paper presented at the New York State Education Department Technology Education Conference, Albany, NY.
135. Hanuscin, D. L., **Lee, O.**, Lynch, S. J., Stuhlsatz, M., Talbot, R. M., & Taylor, J. A. (2018). *The problem of attrition in large-scale studies of science teacher professional development: Lessons learned*. Symposium conducted at the meeting of the National Association for Research in Science Teaching, Atlanta, GA.
134. Goggins, M., **Lee, O.**, Januszyk, R., Haas, A., Llosa, L., & Grapin, S. E. (2018). *Making everyday phenomena phenomenal: Engaging diverse student groups in learning science*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
133. Llosa, L., **Lee, O.**, Van Booven, C., & Haas, A. (2017). *Impact of a multiyear elementary science intervention focused on English language learners*. Paper presented at the meeting of the American Educational Research Association, San Antonio, TX.

132. **Lee, O.**, Llosa, L., & Maerten-Rivera, J. (2016). *Curricular and professional development intervention in elementary science instruction with a focus on English language learners*. Symposium conducted at the meeting of the American Educational Research Association, Baltimore, MD.
131. Llosa, L., **Lee, O.**, Jiang, F., O'Connor, C., & Haas, A. (2015). *The impact of a fifth-grade science curricular and professional development intervention on student science achievement with a focus on English language learners: Evidence from a randomized controlled trial*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
130. Van Booven, C., Llosa, L., & **Lee, O.** (2015). *Spontaneous analogies in elementary student writing: An "untapped" resource for constructing scientific explanations*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
129. O'Connor, C., Llosa, L., Jiang, F., & **Lee, O.** (2015). *Intervention's effect on elementary teachers' science knowledge and practices with English language learners: Year 1 results*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
128. Januszyk, R., & **Lee, O.** (2014). *NGSS case study on economically disadvantaged students: Developing conceptual models to explain chemical processes*. Paper presented at the meeting of the Washington Science Teachers Association, Spokane, WA.
127. Januszyk, R., & **Lee, O.** (2014). *Effective instruction for English language learners: Using language while doing science and engineering practices*. Paper presented at the meeting of the Washington Science Teachers Association, Spokane, WA.
126. Diamond, B., Maerten-Rivera, J., & **Lee, O.** (2014). *Effect of a curricular and professional development intervention on elementary teachers' science content knowledge*. Paper presented at the meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.
125. Lindskoog, G., Maerten-Rivera, J., Ahn, S., Diamond, B., & **Lee, O.** (2014). *Teachers' perceptions of high-stakes testing and accountability in elementary science*. Paper presented at the meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.
124. O'Connor, C., **Lee, O.**, Jiang, F., & Llosa, L. (2014). *School resources in teaching science to English learners across three school districts in one state*. Paper presented at the meeting of the American Educational Research Association, Philadelphia, PA.
123. Haas, A., Jiang, F., **Lee, O.**, & Hollimon, S. (2014). *Elementary science teachers' perceptions of high-stakes science assessment*. Paper presented at the meeting of the American Educational Research Association, Philadelphia, PA.

122. Llosa, L., Van Booven, C., & **Lee, O.** (2014). *Teaching content standards to English language learners: Elementary science teachers' use of language development strategies*. Paper presented at the meeting of the American Educational Research Association, Philadelphia, PA.
121. Maerten-Rivera, J., Adamson, K. H., Huggins, A. C., **Lee, O.**, Llosa, L., Jiang, F., & Rohrer, R. (2014). *The development and validation of instruments used to measure teachers' science knowledge and teaching practices in a professional development project*. Paper presented at the meeting of the American Educational Research Association, Philadelphia, PA.
120. Haas, A., & **Lee, O.** (2014). *Promoting science among English language learners*. Presentation at the conference on Language, Culture, and Identity organized by the Multilingual and Multicultural Center of Portland Public Schools, Portland, ME.
119. **Lee, O.**, Buxton, C. A., Stoddart, T., Rodriguez, A. J., & Mosqueda, E. (2013). *Addressing the challenges of conducting large-scale projects in educational contexts*. Symposium conducted at the meeting of the American Educational Research Association, San Francisco, CA.
118. Quinn, H., **Lee, O.**, & Valdés, G. (2013). *Language demands and opportunities for English language learners: What teachers need to know*. Symposium conducted at the meeting of the American Educational Research Association, San Francisco, CA.
117. **Lee, O.**, Ahn, S., Lanier, K. S., & Rohrer, R. (2013). *School resources in teaching science to English language learners in urban elementary schools: Year 1 results*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
116. Maerten-Rivera, J., **Lee, O.**, Penfield, R. D., & Huggins, A. C. (2013). *The effects of student mobility to a three-year intervention on science achievement: An issue of fidelity*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
115. Lanier, K. S., Suarez, M., Ahn, S., **Lee, O.**, & Hunter, T. (2013). *Principal support: Does it influence teachers' science instructional practices during a science intervention?* Paper presented at the meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
114. Diamond, B., Maerten-Rivera, J., Rohrer, R., & **Lee, O.** (2013). *A professional development intervention's effectiveness on elementary teachers' science content knowledge and student achievement outcomes*. Paper presented at the meeting of the National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
113. Diamond, B., Maerten-Rivera, J., Rohrer, R., & **Lee, O.** (2013). *Effectiveness of curricular and professional development intervention on elementary teachers' science*

- content knowledge and student achievement outcomes: Year 1 results.* Paper presented at the meeting of the Association for Science Teacher Education, Charleston, SC.
112. **Lee, O.**, Negrón, C., Meade, L., & Thrift, M. (2013). *Promoting science among English language learners (P-SELL) scale-up.* Paper presented at the meeting of the Florida Association of Science Teachers, Miami, FL.
  111. Diamond, B., Maerten-Rivera, J., Rohrer, R., & **Lee, O.** (2012). *The effect of teacher science content knowledge on student achievement as measured by the science FCAT.* Paper presented at the meeting of the Florida Educational Research Association, Gainesville, FL.
  110. Maerten-Rivera, J., Adamson, K., Ahn, S., & **Lee, O.** (2012). *An examination of the validity and reliability of constructs used to measure teachers' science knowledge and practices in a longitudinal intervention.* Paper presented at the meeting of the Florida Educational Research Association, Gainesville, FL.
  109. **Lee, O.** (2012). *Next Generation Science Standards for English language learners.* Paper presented at the Orange County Public Schools Back-to-School Professional Development Conference, Orlando, FL.
  108. **Lee, O.**, Ahn, S., Diamond, B., Lanier, K., Lindskoog, G., Maerten-Rivera, J., & Rohrer, R. (2012). *Promoting science among English language learners (P-SELL) efficacy study.* Symposium conducted at the meeting of the National Association for Research in Science Teaching, Indianapolis, IN.
  107. Callihan, L., & **Lee, O.** (2012). *Promoting science among English language learners.* Paper presented at the 13<sup>th</sup> Sharing Our Success Conference in Urban Science and Math Teaching/STEME. Collaboration between New York City Department of Education and Steinhardt School of Culture, Education, and Human Development at New York University, New York, NY.
  106. Callihan, L., & **Lee, O.** (2012). *Promoting science among English language learners.* Paper presented at the Orange County Public Schools Back-to-School Professional Development Conference, Orlando, FL.
  105. **Lee, O.**, de Armas, M., Diaz, J., & Breeding, A. (2012). *Promoting science among English language learners.* Paper presented at the summit of the Association of Latino Administrators and Superintendents, Miami, FL.
  104. **Lee, O.**, Milano, M., Meade, L., Negrón, C., & Zimmerman, R. (2012). *Promoting science among English language learners.* Paper presented at the National Center for Research on the Educational Achievement and Teaching of English Language Learners Conference, Orlando, FL.
  103. Crawford, B., **Lee, O.**, and others. (2011). *Supporting teachers in teaching science as inquiry: What is the evidence for effective professional development?* Symposium

- conducted at the meeting of the National Association for Research in Science Teaching, Orlando, FL.
102. Bianchini, J., Ackerson, V., Calabrese Barton, A., **Lee, O.**, & Rodriguez, A. (2011). *Moving the equity agenda forward: Equity research, practice, and policy in science education*. Interactive poster session at the meeting of the National Association for Research in Science Teaching, Orlando, FL.
  101. Adamson, K., Santau, A., & **Lee, O.** (2011). *Elementary teachers' strategies for teaching science with diverse student populations in urban elementary schools*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  100. Gattamorta, K., **Lee, O.**, & Penfield, R. D. (2011). *Comparing the performance of English language learners to non-English language learners on a measure of science*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  99. Maerten-Rivera, J., & **Lee, O.** (2011). *Teacher change in elementary science instruction with English language learners*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  98. Mahotiere, M., Neporcha, C., & **Lee, O.** (2011). *Children of promise: Immigrant Haitian parents' aspirations for their children*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  97. **Lee, O.**, & Penfield, R. D. (2011). *Science achievement of English language learners in urban elementary schools: Multi-year intervention across multiple grades*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  96. Penfield, R. D., & **Lee, O.** (2011). *Year 1 of an efficacy trial of promoting science among English language learners (P-SELL): Intervention, results, and limitations*. Paper presented at the Society for Research on Educational Effectiveness Conference, Washington, DC.
  95. Adamson, K., Maerten-Rivera, J., & **Lee, O.** (2010). *Lessons learned during a 5-year professional development intervention promoting science Instruction among English language learners*. Paper presented at the meeting of the American Educational Research Association, Denver, CO.
  94. **Lee, O.**, Penfield, R. D., & Buxton, C. A. (2010). *Relationship between "form" and "content" in science writing among English language learners*. Paper presented at the meeting of the American Educational Research Association, Denver, CO.
  93. Maerten-Rivera, J., Myers, N., **Lee, O.**, & Penfield, R. D. (2010). *Student and school predictors of high-stakes assessment in science*. Paper presented at the meeting of the American Educational Research Association, Denver, CO.

92. Adamson, K. H., Secada, W. G., Maerten-Rivera, J., & Lee, O. (2009). *The impact of an integrated mathematics and science curriculum on third-grade students' measurement achievement*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
91. Cone, N., Mahotiere, M., Buxton, C. A., & Lee, O. (2009). *Comparing or complementary? Home and school identity formation of Haitian youth in South Florida*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
90. Huggins, A. C., Penfield, R. D., Lee, O., & Maerten-Rivera, J. (2009). *Student mobility and science achievement: The impact of intervention exposure on the efficacy of a 3-year science intervention*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
89. Santau, A. O., Buxton, C. A., & Lee, O. (2009). *Science and literacy assessments with English language learners*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
88. Santau, A. O., Maerten-Rivera, J., Cone, N., & Lee, O. (2009). *Relationships among domains of teachers' knowledge and practices in science with English language learners*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
87. Adamson, K., Maerten-Rivera, J., & Lee, O. (2008). *Teachers' perspectives on a professional development intervention to improve science instruction among English language learners*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
86. Lee, O. (2008). *Cultural and home language influences on children's responses to science assessments*. Symposium conducted at the meeting of the American Educational Research Association, New York, NY.
85. Lee, O., & Penfield, R. D. (2008). *Methodological issues in an urban study*. Paper presented at the DR-K12 PI meeting of the National Science Foundation, Washington, DC.
84. Lewis, S., Adamson, K., Maerten-Rivera, J., Lee, O., & Secada, W. G. (2008). *Relationships between science practices and English language practices in urban elementary classrooms*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
83. Mahotiere, M., Maerten-Rivera, J., & Lee, O. (2008). *Science writing achievement among English language learners: Results of 3-year intervention in urban elementary schools*. Paper presented at the meeting of the American Educational Research Association, New York, NY.

82. Maerten-Rivera, J., Penfield, R. D., Myers, N., Buxton, C. A., & Lee, O. (2008). *Relationship of school and teacher variables to science instruction practices with English language learners*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
81. Santau, A., Maerten-Rivera, J., Cone, N., & Lee, O. (2008). *Urban elementary school teachers' knowledge and practices in teaching science to English language learners*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
80. Buxton, C. A., Mahotiere, M., Lee, O., & Secada, W. G. (2007). *Bringing culture in through the back door: 3rd grade teachers analyze English language learners' reasoning about measurement*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
79. Lewis, S., Adamson, K., Maerten-Rivera, J., Lee, O., & Secada, W. G. (2007). *Urban elementary school teachers' knowledge and practices in the context of teaching science to English language learners*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
78. Maerten-Rivera, J., Penfield, R. D., Myers, N., & Lee, O. (2007). *Relationship of school and teacher variables to science instruction practices with English language learning (ELL) students*. Paper presented at the meeting of the Florida Educational Research Association, Tampa, FL.
77. Maerten-Rivera, J., Lee, O., Buxton, C. A., Penfield, R. D., & Secada, W. G. (2007). *Urban elementary school teachers' perceived knowledge, practices, and organizational supports and barriers in science instruction with English language learners*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
76. Mahotiere, M., Elliott, M., Santau, A., Buxton, C. A., & Lee, O. (2007). *Examining science knowledge and reasoning skills of third grade ELL students*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
75. Buxton, C. A., Lee, O., Lewis, S., Adamson, K., Carr-LeRoy, K., Santau-Sodhi, A., . . . Maerten-Rivera, J. (2006). *Promoting science among English language learners in a high-stakes testing policy context*. Symposium conducted at the meeting of the National Association for Research in Science Teaching, San Francisco, CA.
74. Lee, O. (2005). *Examining modifications of curriculum units for student groups in multilingual, multicultural, or urban contexts*. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada.
73. Hart, J., & Lee, O. (2005). *Case studies in culturally relevant science teaching: Linking teacher beliefs and practices to student achievement*. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada.



72. Lester, B., Ma, L., **Lee, O.**, & Lambert, J. (2005). *Social activism in elementary science education: An STS approach to teach global warming*. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada.
71. Lambert, J., & **Lee, O.** (2005). *Diverse students' achievement and perceptions of an inquiry-based earth systems curriculum*. Paper presented at the meeting of the National Association for Research in Science Teaching, Dallas, TX.
70. Buxton, C. A., **Lee, O.**, Luykx, A., & Shaver, A. (2005). *Elementary teachers' beliefs and practices regarding linguistic and cultural diversity in science and literacy instruction*. Paper presented at the meeting of the National Association for Research in Science Teaching, Dallas, TX.
69. Atwater, M., Chinn, P., Key, S., Arambula-Greenfield, T., & **Lee, O.** (2005). *The research lens on science teacher education*. Symposium conducted at the meeting of the National Association for Research in Science Teaching, Dallas, TX.
68. **Lee, O.**, & Luykx, A. (2004). *Scaling up of instructional interventions with elementary students*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
67. Tharp, R. G., Genessee, F., Datnow, A. L., **Lee, O.**, Cooper, C. R., Knight, S. L., . . . Padron, Y. N. (2004). *Closing the achievement gap: Setting a research agenda for equitable education in the United States*. Presidential invited symposium conducted at the meeting of the American Educational Research Association, San Diego, CA.
66. Luykx, A., **Lee, O.**, Hart, J., & Lester, B. (2004). *Cultural and home language influence in elementary students' constructed responses on science assessments*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
65. Cuevas, P., **Lee, O.**, Hart, J., & Deaktor, R. (2004). *Promoting science inquiry with students from diverse languages and cultures*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
64. Lambert, J., Lester, B., & **Lee, O.** (2004). *Professional development in earth systems education: Teacher beliefs and practices in promoting science and English language and literacy*. Paper presented at the meeting of the National Association for Research in Science Teaching, Vancouver, Canada.
63. Deaktor, R., **Lee, O.**, & Enders, C. (2003). *Impact of an instructional intervention on science and literacy achievement*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
62. Hart, J., **Lee, O.**, & Enders, C. (2003). *Promoting science and literacy among linguistically diverse students: Impact of instructional intervention on teacher knowledge,*

- beliefs, and practices.* Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
61. Luykx, A., **Lee, O.**, & Lambert, J. (2003). *Gauging instructional congruence in elementary science classrooms: Methodological application of a theoretical framework.* Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
  60. **Lee, O.**, and others. (2003). *Inquiry in the classroom.* Symposium conducted at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.
  59. **Lee, O.** (2003). *Scaling up of instructional intervention for science and literacy with linguistically diverse elementary students in urban schools.* Paper presented at the meeting of the National Association for Research in Science Teaching, Philadelphia, PA.
  58. **Lee, O.**, and others. (2003). *CREDE Institute–Diversity in education.* Symposium conducted at the meeting of the National Association for Bilingual Education, New Orleans, LA.
  57. Bessell, A. G., **Lee, O.**, Schumm, J. S., Barza, L., & Rangel, A. (2002). *The many faces of success: Lessons learned from South Florida Annenberg Challenge case studies.* Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  56. **Lee, O.**, Cuevas, P., Deaktor, R., Hart, J. Ceballos, M., Laurence, S., & Palomo, E. (2002). *Promoting science and literacy for linguistically diverse elementary students.* Symposium conducted at the meeting of the American Educational Research Association, New Orleans, LA.
  55. **Lee, O.**, Lambert, J., Cuevas, P., Deaktor, R., & Hart, J. (2002). *Instructional intervention to promote science and literacy for linguistically diverse elementary students.* Paper presented at the meeting of the National Association for Research in Science Teaching, New Orleans, LA.
  54. García, G., Reyes, I., **Lee, O.**, Deaktor, R., & Hart, J. (2002). *Science instruction for all: Promoting science and literacy for linguistically diverse elementary students.* Symposium conducted at the meeting of the National Association for Bilingual Education, Philadelphia, PA.
  53. **Lee, O.**, Fradd, S. H., & Campbell, A. (2001). *Promoting science inquiry with linguistically diverse elementary students.* Paper presented at the meeting of the American Educational Research Association, Seattle, WA.
  52. **Lee, O.**, & Fradd, S. H. (2001). *Instructional congruence for linguistically diverse students in science education.* Paper presented at the meeting of the National Association for Research in Science Teaching, St. Louis, MO.

51. Rangel, A., Barza, L., Bessell, A., **Lee, O.**, & Schumm, J. (2001). *Case study of the South Florida Annenberg Challenge project*. Paper presented at the meeting of the American Educational Research Association, Seattle, WA.
50. **Lee, O.**, & Fradd, S. H. (2000). *Teacher learning and change in science and literacy instruction for linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
49. **Lee, O.** (1999). *Worldviews: Ethnicity, gender, and social class*. Paper presented as part of a pre-conference NARST workshop at the meeting of the National Association for Research in Science Teaching, Boston, MA.
48. **Lee, O.**, & Fradd, S. H. (1999). *Instructional congruence for linguistically diverse students in science education*. Paper presented at the meeting of the National Association for Research in Science Teaching, Boston, MA.
47. **Lee, O.** (1999). Science instruction for language enriched pupils. In *Creating a multilingual global work force: Enabling students from diverse language backgrounds to achieve parity within the mainstream*. Symposium conducted at the meeting of the American Educational Research Association, Montreal, Canada.
46. **Lee, O.** (1999). Science learning: Instruction and assessment in the classroom. In *Promoting mathematics and science learning for students from diverse languages and cultures*. Symposium presented at the meeting of the American Educational Research Association, Montreal, Canada.
45. Fradd, S. H., & **Lee, O.** (1999). *Needed: A framework for integrating standardized and informal assessment for students developing academic language proficiency in English*. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada.
44. **Lee, O.** (1998). Cultural and linguistic competence in talking about science. In *Discourse perspectives in science education: Theories, methods, and future directions*. Symposium conducted at the meeting of the National Association for Research in Science Teaching, San Diego, CA.
43. **Lee, O.** (1998). Current conceptions of science achievement and implications for assessment and equity in large education systems. In *Evaluating systemic initiatives*. Symposium conducted at the meeting of the American Educational Research Association, San Diego, CA.
42. **Lee, O.**, & Fradd, S. H. (1988). *Linguistically diverse students' perceptions of science education*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.

41. **Lee, O.**, & Fradd, S. H. (1988). *Instructional congruence for linguistically diverse students in science education*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
40. Fradd, S. H., & **Lee, O.** (1998). *Multiple representations by linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.
39. Fradd, S. H., & **Lee, O.** (1998). *Promoting language development through science learning*. Paper presented at the 32nd meeting of Teaching English to Speakers of Other Languages, Seattle, WA.
38. Fradd, S. H., & **Lee, O.** (1998). Inquiry based hands-on science with linguistically diverse students. In *More effective learning outcomes from inquiry-based science laboratory instruction*. Symposium conducted at the meeting of the American Association for the Advancement of Science and Science Innovation Exposition, Philadelphia, PA.
37. **Lee, O.**, Fradd, S. H., & Sutman, F. X. (1997). *Science conceptions among linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
36. Jones, L., Aikenhead, G. S., Atwater, M. M., **Lee, O.**, Lynch, S. J., & Rodríguez, A. J. (1997). *Science education for all? Can we achieve educational equity without an antiracist critique?* Symposium conducted at the meeting of the National Association for Research in Science Teaching, Chicago, IL.
35. **Lee, O.** (1997). *Issues of science learning: School and classroom-based policies and practices*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
34. **Lee, O.**, & Fradd, S. H. (1997). *Using instructional assessment to promote science learning*. Paper presented at the meeting of Teachers of English to Speakers of Other Languages, Orlando, FL.
33. **Lee, O.**, & Fradd, S. H. (1996). *The interplay among language, science knowledge, and cognitive strategy use with linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
32. Fradd, S. H., & **Lee, O.** (1996). *Program evaluation as an on-going process for model program development: A case study of an ESOL teacher education program*. Paper presented at the meeting of the American Educational Research Association, New York, NY.
31. **Lee, O.**, & Fradd, S. H. (1996). *Interactional patterns of linguistically diverse students during science performance*. Paper presented at the meeting of the National Association

- for Research in Science Teaching, St. Louis, MO and the Intercultural/International Communication Conference, Miami, FL.
30. Atwater, M., Elleman, J. E., **Lee, O.**, & Lynch, S. (1996). *Project 2061 equity blueprint*. Symposium and panel discussion at the meeting of the National Association for Research in Science teaching, St. Louis, MO.
  29. Fradd, S. H., **Lee, O.**, & Merrill, H. (1996). *Measuring students' understanding of literacy and science*. Paper presented at the meeting of Teaching English to Speakers of Other Languages, Chicago, IL.
  28. Atwater, M., **Lee, O.**, Lynch, S., Ross, P., & Stefanich, G. (1995). *Project 2061 equity blueprint*. Symposium and panel discussion at the meeting of the American Association of Colleges for Teacher Education, Chicago, IL.
  27. **Lee, O.** (1995). *Children's views of the world in social and cultural contexts*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
  26. **Lee, O.**, & Fradd, S. H. (1995). *Science knowledge and cognitive strategies among culturally and linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
  25. Fradd, S. H., & **Lee, O.** (1995). *Interactional patterns during science performance among culturally and linguistically diverse students*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
  24. Atwater, M., Eccles, J., Elleman, J. E., **Lee, O.**, Lynch, S., & Secada, W. G. (1995). *Project 2061 equity blueprint*. Symposium and panel discussion at the meeting of the National Association for Research in Science Teaching, San Francisco, CA.
  23. Burns-Hoffman, R., Fradd, S. H., & **Lee, O.** (1994). *Patterns of anaphora in students' expository discourse*. Paper presented at the Boston University Conference on Language Development, Boston, MA.
  22. **Lee, O.** (1994). *Children's views of the world in social and cultural contexts*. Paper presented at the Spencer Fellows Forum, the National Academy of Education Meeting, New Orleans, LA.
  21. **Lee, O.**, Cuevas, G., & Francisco, J. (1994). *Staff development model in elementary school mathematics and science: Impact on teachers and students*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
  20. **Lee, O.**, & Fradd, S. H. (1994). *Science knowledge, cognitive strategies, and motivational orientations of culturally and linguistically diverse students*. Paper presented at the meeting of the National Association for Research in Science Teaching, Anaheim, CA.

19. Fradd, S. H., & Lee, O. (1994). *Literacy skills and science knowledge across culturally and linguistically diverse students*. Paper presented at the meeting of the National Association for Research in Science Teaching, Anaheim, CA.
18. Fradd, S. H., & Lee, O. (1993). *Collecting and analyzing language samples of student performance: How can we do it? What can we learn?* Southeast TESOL Regional Conference, Fort Lauderdale, FL.
17. Lee, O., & Cuevas, G. (1993). *Collaboration for teacher enhancement in elementary school mathematics and science*. Paper presented at the meeting of the American Educational Research Association, Atlanta, GA.
16. Lee, O. (1993). *Style, little substance in the complexities of classroom teaching*. Paper presented at the meeting of the Intercultural/International Communication Conference, Miami, FL.
15. Lee, O. (1991). *Achievement and motivation in middle school science classrooms*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
14. Lee, O. (1991). *Student motivation in middle school science classrooms*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
13. Lee, O. (1991). *The quality of task engagement as a measure of classroom motivation*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
12. McIntosh, R. M., Vaughn, S., Schumm, J. S., Gordon, J., & Lee, O. (1991). *Observations of planning and adaptations made by teachers for divergent learners in regular classrooms*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.
11. Lee, O., Anderson, C. W., & Eichinger, D. (1990). *Effects of conceptual change approach on student motivation to learn in middle school science classrooms*. Paper presented at the meeting of the American Educational Research Association, Boston, MA.
10. Lee, O., Eichinger, D., Anderson, C. W., Berkheimer, G. D., & Blakeslee, T. C. (1989). *Changing middle school students' conceptions of matter and molecules*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
9. Lee, O., & Salwen, M. B. (1989). *Press coverage of education in developed and developing nations: A comparison of the United States and the Republic of Korea*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

8. **Lee, O., & Anderson, C. W.** (1988). *The relationship between student motivation to learn science and conceptual understanding in middle school*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
7. **Lee, O., & Porter, A. C.** (1988). *Bounded rationality in classroom teaching*. Paper presented at the meeting of the American Educational Research Association, New Orleans, LA.
6. **Eichinger, D., & Lee, O.** (1988). *Alternative students' conceptions of kinetic molecular theory*. Paper presented at the meeting of the National Association for Research in Science Teaching, Lake Ozark, MO.
5. **Lee, O.** (1987). *Teacher expectations and differential treatment of whole classes in middle school science: Bounded rationality*. Paper presented at the meeting of the American Educational Research Association, Washington, DC.
4. **Contreras, A., & Lee, O.** (1987). *Differential treatment of students by middle school science teachers: Unintended cultural bias*. Paper presented at the meeting of the National Association for Research in Science Teaching, Washington, DC.
3. **Lee, O., & Gallagher, J. J.** (1987). *Continuing professional development activities of secondary school science teachers*. Paper presented at the meeting of the National Association for Research in Science Teaching, Washington, DC.
2. **Lee, O., & Gallagher, J. J.** (1986). *Middle school science teachers' perceptions of their instructional roles*. Paper presented at the meeting of the National Association for Research in Science Teaching, San Francisco, CA.
1. **Lee, O., & Gallagher, J. J.** (1986). *Differential treatment of individual students and whole classes by middle school science teachers*. Paper presented at the meeting of the National Association for Research in Science Teaching, San Francisco, CA.

### **COURSES TAUGHT**

2011-present	Steinhardt School of Culture, Education, and Human Development, New York University, 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, Florida Taught undergraduate and graduate courses for Departments of

Educational and Psychological Studies (EPS) and 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
	<u>Academic Advisor and Dissertation Chair</u>
	2. Leah Master (Teaching and Learning)
	1. Alison Haas (Teaching and Learning, Co-Chair)
	<u>Dissertation Committee Member</u>
	1. Scott E. Grapin (Teaching and Learning)
	<u>Outside Reader</u>
	1. Jinjoo Han (Teaching and Learning)
2006-present	<u>Outside Member at Other Institutions</u>
	3. Jessica Hehl, School of Education, Syracuse University
	2. Emily Adah, College of Education, University of Wisconsin at Madison
	1. Lopez-Ferrao, Julio (Doctoral dissertation committee in the School of Education at George Mason University)
1990-2014	School of Education, University of Miami, Florida Served on dissertation committees for doctoral students in the School of Education at the University of Miami:
	<u>Academic Advisor and Dissertation Chair</u> (listed chronologically)



4. Lindskoog, Georgina (Teaching and Learning). *The impact of a curricular and professional development intervention on elementary science teachers' perceptions of high-stakes testing and accountability.*
3. Diamond, Brandon (Teaching and Learning). *Effect of a curricular and professional development intervention on elementary teachers' science content knowledge.*
2. Santau, Alexandra (Teaching and Learning). *Elementary school teachers' knowledge and practices in teaching science to English language learners.*
1. Thurmond, Carolyn (Teaching and Learning). *Conceptions of scientific literacy among science professors and science education professors.*

Dissertation Committee Member (listed alphabetically)

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

1992-2014

Outside Member at the University of Miami (listed chronologically)

6. Donaher, Shaunna (Doctoral dissertation study for the Meteorology and Physical Oceanography program)

5. Luoh, Shiunn-Hyuan (Master's thesis in the School of Communication)
4. Palacios, Wilson, R. (Master's thesis in the Department of Sociology, College of Arts and Sciences)
3. Reed, M. D. (Master's thesis in the School of Communication)
2. Kronforst, Marcus, R. (Senior thesis)
1. Zaslavsky, Hallee N. (Senior thesis)

### **SERVICE TO NEW YORK UNIVERSITY**

2019-present	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.
2018-2022	Department of Teaching and Learning Promotion and Tenure Committee, Steinhardt School of Culture, Education, and Human Development.
2018-2021	Dean's Promotion and Tenure Advisory Committee (Alternate), Steinhardt School of Culture, Education, and Human Development.
2018	Discussion panel, Fundraising fundamentals: The importance of fundraising from government, corporate and private foundations. Steinhardt School of Culture, Education, and Human Development (March).
2018	Workshop facilitator, A new professional development opportunity–The Steinhardt pilot grant writing workshops organized by Steinhardt School of Culture, Education, and Human Development (January).
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 (November).
2017	Office of Research Event, sponsored by the Office of Research at Steinhardt School of Culture, Education, and Human Development (July).
2017	IES discussion panel, sponsored by the Office of Research at Steinhardt School of Culture, Education, and Human Development (June).
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 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 "NSF grant funding," sponsored by the Office of Research and Doctoral Studies at Steinhardt School of Culture, Education, and Human Development, New York University, NY (March).
- 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, University of Miami.
- 2010 Provost's Award for Scholarly Activity Selection Committee, University of Miami.
- 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, University of Miami.

*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, University of Miami.
2004-2007	School Council, School of Education.
2006	Search Committee for the Dean of the School of Education, University of Miami.
2000-2003	Committee for the School of Education Research Center, School of Education.
1999-2001	Strategic Planning Committee for the Library, University of Miami.
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.

March 1, 2021