Sonya N. Martin

PROFESSIONAL ADDRESS:

Seoul National University Department of Earth Science Education Office: Bldg. 13, Rm 332; Lab: Bldg. 13, Rm 326 Seoul, 08826, Republic of Korea

COMMUNICATION:

Lab Phone: (82) 02-880-1382 Cell Phone:(82) 10-4717-1955 Skype: martin.hostteter Email: sonya martin@fastmail.com

EDUCATION

Drexel University, School of Education, Philadelphia, PA Teaching English as a Second Language Certificate, March 2011

Curtin University, Science and Mathematics Education Centre, Perth, Australia Doctor of Philosophy, May 2005 (Advisors: <u>Drs. Kenneth Tobin</u> & <u>Barry Fraser</u>)

University of Pennsylvania, School of Arts and Sciences, Philadelphia, PA M.S. in Chemistry Education, August 2002 (Advisors: <u>Drs. Hai-Lung Dai</u> & <u>Kenneth Tobin</u>)

University of Pennsylvania, Graduate School of Education, Philadelphia, PA M.S. in Elementary Education, Thesis awarded Pass with Distinction, May 1998 (Advisors: Drs. Janine Remillard & Katherine Schultz)

Bryn Mawr College, Bryn Mawr, PA B.A. in Biology, pre-med with a concentration in Neuroscience, May 1995 (Advisor: <u>Dr. Peter Brodfuehrer</u>)

TEACHING CERTIFICATIONS ** ALL VALID AND ACTIVE

Pennsylvania Instructional I Certificate in TESOL (K-12), 2010-present Pennsylvania Instructional II Certification in Elementary Education (K-6), 1998-present Pennsylvania Instructional II Certification in Biology (7-12), 1998-present Pennsylvania Instructional II Certification in Chemistry (7-12), 2002-present

ACADEMIC APPOINTMENTS

2015 – present	Seoul National University , Seoul, Republic of Korea Associate Professor of Science Education, Dept of Earth Science Education Affiliated Professor, Interdisciplinary Environmental Education Program Affiliated Professor, Interdisciplinary Global Education Cooperation Program
2011 - 2015	Seoul National University , Seoul, Republic of Korea Assistant Professor of Science Education, Dept of Earth Science Education
2007 - 2011	Drexel University , Philadelphia, PA (<u>*tenured and promoted to Associate in 2011</u>) Assistant Professor of Science Education, School of Education
2006 - 2010	The Graduate Center , City University of New York, New York City, NY <i>Assistant Professor</i> , (<u>Dual Appointment</u>) Urban Education Department
2005 - 2007	Queens College , City University of New York, Flushing, NY <i>Assistant Professor</i> , Elementary and Early Childhood Education Department

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2009 - 2010	University of Pennsylvania , Philadelphia, PA <i>Faculty Lecturer</i> , Master's of Integrated Science Education Program
2006 - 2007	University of Pennsylvania , Philadelphia, PA <i>Faculty Lecturer</i> , Master's of Chemistry Education Program
2004 - 2005	Queens College , City University of New York, Flushing, NY <i>Faculty Lecturer</i> , Elementary and Early Childhood Education Department
2002 - 2004	University of Pennsylvania , Philadelphia, PA <i>Instructor</i> , Graduate School of Education
1998 - 2002	School District of Philadelphia , Philadelphia, PA <i>Science Teacher</i> , Grades 5, 7, 8, 9, 10, and 12
1997 – 1998	University of Pennsylvania , Philadelphia, PA <i>Research Assistant</i> , Graduate School of Education
1995 – 1997	Veterinary Hospital, University of Pennsylvania, Philadelphia, PA Research Laboratory Technician, Department of Clinical Studies
1993 – 1995	Bryn Mawr College, Bryn Mawr, PA Student Research Assistant, NIH Student Scholarship Fund

LEADERSHIP ACTIVITIES

2019 – 2022	International Coordinator , NARST Executive Board Member Responsibilities include developing and coordinating partnerships with other international science education research associations and serving as Chair of the International Committee for NARST.
2019 – present	Asia-Pacific Science Education (APSE), Editor-in-Chief (SCOPUS**) Co-founder and Editor-in-Chief of open-access journal published by Springer focused on issues associated with science teaching and learning in the Asia- Pacific region. (<u>http://www.apse-journal.com</u>)
2017 - 2018	Co-Chair , NARST Membership Committee Responsibilities include developing membership initiatives and coordinating Early Career and Mentor-Mentee sponsored sessions at the annual conference.
2015 - 2019	Asia-Pacific Science Education (APSE), Co-Editor
2014 –present	iSNUCE Director , <i>College of Education</i> , Seoul National University Created / implemented new international student orientation, mentoring, and cultural experience programming for College of Education. (video)
2015 - 2017	ESD Commune Asia Durgroup Diversion Second National University
2013 2017	ESD Campus Asia Program, Director , Seoul National University Curriculum development and implementation of student exchange program, at SNU with Hokkaido University students, focusing on education for sustainable development.

Serve as faculty representative for College of Education committee developed to enhance research and academic exchanges with foreign faculty and students in international universities (사범대학 세계화위원회 위원).

PROFESSIONAL ASSOCIATION BOARD MEMBER

National Association for Research in Science Teaching (<u>NARST</u>), March 2019 – February 2022 Korean Association for Science Education (<u>KASE</u>), March 2013 – February 2020 Korean Association of Qualitative Inquiry (<u>KAQI</u>), January 2018 – December 2020

EDITORIAL BOARD ACTIVITIES

<u>Cultural Studies of Science Education</u>, 2007 - present <u>Research in Science Education</u>, 2007 - present <u>Journal of Science Teacher Education</u>, 2012-2019 <u>Journal of Korean Association of Science Education</u>, 2012 - 2019 <u>Korean Journal of Biology Education</u>, 2013 – 2019 <u>EURASIA Journal of Mathematics, Science and Technology Education</u>, 2013 – 2019 <u>Journal of Research in Science Teaching</u>, 2012-2018

SPECIAL ISSUE EDITOR / Co-Editor

♦ Local/Global Issues in Science Education Cultural Studies of Science Education, 5(2), 2006

- ♦ Past, Present, and Future of STEM Education in Korea EURASIA, 12(7), 2016
- ♦ Coteaching in Teacher Education: Research and Practice Asia-Pacific Journal of Teacher Education, 43(4), 2015

Research Interests and Current Projects

I am a teacher educator and researcher focusing on addressing equity issues in science education. My broad research interests focus on using qualitative research methods and sociocultural theories to explore the intersections of culture and language in the context of school science. My studies are primarily designed to engage teachers and students in collaborative classroom-based research that focuses on identifying ways to transform how science is taught and learned so students who are traditionally marginalized in science (such as, culturally and linguistically diverse students or students with special education needs) have expanded opportunities to participate in science and improve their understanding and achievement. At the same time, my research focuses on supporting the professionalization of science teachers so they are positioned to effectively support all students to learn science. I am engaged in several lines of active research on how people learn to teach science for students with diverse learning abilities.

PUBLICATIONS

Books (peer-reviewed)

- 1. Song, J., Park, H.Y., Jeong, Y.J., **Martin, S.**, Im, H.J., Na, J., Jang, J., Cho, H.M. & Kang, D.Y. (June, 2019). 미래 학교교육: 무엇을 어떻게 준비할 것인가? *[The Future of School Education: What and how to prepare?]*. Seoul, Republic of Korea: Bookshill. [Korean Language/한국어]
- 2. Song, J., Jeong, Y., **Martin, S.**, Na, J., Jang, J., & Kang, D.Y. (June, 2018). 교실과 문화: 동아시아 과학 교실문화의 이해 [Classroom and Culture: Understanding the Science Classroom Culture of East Asia]. Seoul, Republic of Korea: Bookshill. [Korean Language/한국어]

3. Scantlebury, K., Kahle, J.B., & Martin, S. [Eds.]. (2010). *Re-visioning science education from feminist perspectives: Challenges, choices and careers*. Netherlands: Sense Publishers.

Journal (In preparation)

- 1. Martin, S., & Ruggirello, R. (in preparation). *The need for Death Education in Science*. To be submitted to *Cultural Studies of Science Education*.
- Kim, Y.B., Kang, D.Y., Chu, H.E., & Martin, S. (in preparation). A Study on Science Teachers' Perceptions, Self-Efficacy and Teaching Practices of Students with Special Education Needs in Inclusive Science Classes. To be submitted to Asia-Pacific Science Education.
- 3. Lee, G.G., Kang, D.Y., Kim, M.J., Hong, H.G., & Martin, S. (in preparation). University students' perceptions of remote laboratory sessions necessitated by COVID-19: Differences by emergent teaching strategies in a Korean University. To be submitted to Asia-Pacific Education Review.
- 4. Lee, J.Y., Villegas-Contreras, A., & Martin, S. (in preparation). A comparative study of Korea and Mexico Education system response to COVID-19 with a focus on primary teachers' perspectives. To be submitted to... *undeclared*.
- 5. Ahn, S.R., Gi, G.M., & Martin, S. (in preparation). *Examining Contradictions in Community Gardening using Structure/Agency: Implications for Garden-Based (Environmental) Learning.*

(In Review)

- 1. Faisal & Martin, S. (in review). Promoting Pre-Service and In-Service Biology Teachers' Perceptions About Socioscientific Issue-Based Instruction. Submitted to *Asia-Pacific Science Education*.
- Lee, G.G., Kang. D.Y., Kim, M.J., Hong, H.G., & Martin, S. (in review). The Emergence of Remote Laboratory Sessions in an Emergency Situation: University Instructors' Agency During the COVID-19 Pandemic. Submitted to Cultural Studies of Science Education.
- 3. Lee, H., Kang, D.Y., Kim, M.J., & Martin, S. (in review). *Navigating into the Future of Science Museum Education focused on Educators' Adaptions during Covid-19*. Submitted to Cultural Studies of Science Education.
- 4. Lee, Y.J., & Martin, S. (in review). A Phenomenological Research of Elementary School Teachers' COVID-19 Experiences: Changes in Life as a Teacher and the Meaning of the Classroom. To be submitted to the journal of the Korean Academy of Qualitative Exploration.
- 5. Faisal, & Martin, S. (in review). *Exploring Indonesian Pre-Service and In-Service Biology Teachers' Teaching Practices on Socioscientific Issues (SSI)*. Submitted to the Journal of Science Teacher Education.

(In Revision)

- 1. Choi, Y.S., & Martin, S. (accepted, major revisions). *Exploring students' use of gestures to create scientific models during geological field trips and modeling activities*. To be submitted to Asia-Pacific Science Education.
- 2. Kang, D.Y., Lee, J.Y., Kim, M.J., **Martin, S.**, & Lee, H. (accepted, major revision). 국내 과학관의 코로나-19 대응과 미래전략: 국립과학관 경영인력의 경험을 중심으로 [National Science Museum Administrators' responses to COVID-19 and their future strategies for Korean science museums]. Submitted to the journal 한국과학예술융합학회 [The Korean Society of Science and Art].

3.

Journal Publications (Refereed/Peer-Reviewed)

- 1. Kim, M.J., Kang, D. Y., & **Martin, S.** (in press). Exploring informal science education responses to COVID-19 global pandemic: Learning from the case of the Gwacheon National Science Museum in Korea. *Cultural Studies of Science Education, xx(x), xx-xx. DOI :10.1007/s11422-021-10073-5* **SSCI/SCOPUS
- 2. **Martin, S.** (December, 2021). Asia-Pacific Science Education (APSE): Building a Community of Scholars. *Asia-Pacific Science Education*, 7(2), 227-233. ***SCOPUS*
- ^{3.} Mang, H.A., Chu, H.E., **Martin, S.**, & Kim, C.H. (December, 2021). An SSI-Based STEAM Approach to Developing Science Programs. *Asia-Pacific Science Education*, 6(2), 549-585. ** scopus
- 4. **Martin, S.** (December, 2020). Asia-Pacific Science Education (APSE): Expanding Research on Equity and Inclusion Science Education in the Asia-Pacific Region. *Asia-Pacific Science Education*, 6(2), 1-7
- 5. Sprong, L., & **Martin, S.** (July, 2020). Exploring Indian Middle School Students' Conceptions of the Environment Using the Draw-an-Environment Test. *Asia-Pacific Science Education*, *6(1)*, *1-27*.
- 6. **Martin, S.** (July, 2020). Asia-Pacific Science Education (APSE): Challenged to lead in uncertain times. *Asia-Pacific Science Education*, 6(1), 1-11.
- 7. Faisal, Gi, G.M., & Martin, S. (June, 2020). Analysis of Government Funded Research in Indonesia from 2014-2018: Implications for Research Trends in Science Education. *Jurnal Pendidikan IPA Indonesia*, 9(2), 146-158. ***SCOPUS*
- 8. **Martin, S.,** & Kang, D.Y. (June, 2020). Rethinking approaches to research: The importance of considering contextually mitigating factors to promote equitable practices in science education research. *Cultural Studies of Science Education.* 15(2), 569-582. **SSCI/SCOPUS
- 9. Gi, G., Park, E.J., Ha, G.G., & Martin, S. (December, 2019). Research Trends of Equity in Informal Science Learning and Education from 2000 to 2017 Using Network Analysis. Submitted to the journal of the Korea Institute of Exhibition Industry Convergence. [Korean Language/한국어] KCI
- 10. Faisal & Martin, S. (April, 2019). Science Education in Indonesia: Past, Present and Future. *Asia-Pacific Science Education*, 1:4, 2019.
- Chu, H.E., Martin, S., & Park, J. (August, 2018). A theoretical framework for developing an intercultural STEAM program for Australian and Korean students to enhance science teaching and learning. *International Journal of Science and Mathematics Education*, 17(7), 1251-1266. https://doi.org/10.1007/s10763-018-9922-y ** SSCI
- Kang, D. Y., & Martin, S. (August, 2018). Improving Learning Opportunities for Special Education Needs (SEN) Students by Engaging Pre-Service Science Teachers in an Informal Experiential Learning Course. Asia Pacific Journal of Education, 38(3), 319-347. doi.org/10.1080/02188791.2018.1505599 ** SSCI
- ^{13.} Kang, D.Y., Chang, J., & Martin, S. (June, 2018). 다문화 학생들을 위한 과학 학습의 관점에서 초등학교 3-4학년 과학 디지털교과서 구성의 특징 분석: SIOP 모델을 중심 으로 [A study of the characteristics of grades 3 and 4 science digital textbooks for multicultural students from the perspective of SIOP]. *The Journal of Learner-centered Curriculum and Instruction*, 18(12), 315-344. http://dx.doi.org/10.22251/jlcci.2018.18.12.315 **KCI [Korean Language/한국어]
- 14. Song, G.-Y., Chu, H.E., **Martin, S.,** & Kim, H.J. (June, 2018). 지속가능발전교육을 위한 초등학교 영어 그림책 선정 기준 개발 및 활용 방안 연구 [Development and Utilization of an Evaluation tool for Selecting English language Picture books for Teaching ESD in the

Elementary classroom]. 환경교육, 31(2), 132-152. http://doi.org/10.17965/kjee.2018.31.2.132 ** KCI [Korean Language/한국어]

- Lee, Y.J., Chu, H.E., & Martin, S. (May, 2018). Examining factors that influence on elementary teachers' perceptions in a graduate level Interdisciplinary Environmental Education program: Using ePCK as a framework. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(10), 1-23. DOI: https://doi.org/10.29333/ejmste/92184 ***SCOPUS*
- 16. Fulmer, G., Chu, H.E., & **Martin, S.** (May, 2018). The potential of teacher-led research: Teachers' action research collaborations in science education in Singapore. *Asia-Pacific Science Education*, 4:7, 1-6.
- 17. Park, C.M., & **Martin, S.** (April, 2018). Improving Science Teaching and Learning for New Teachers and Diverse Learners Using Participatory Action Research and Cogenerative Dialogue. *Journal of Korean Association of Science Education*, 32(2), 97-112. ** KCI
- 18. Kang, D.Y., & **Martin, S.** (April, 2018). Understanding structures preventing teachers from supporting culturally and linguistically diverse students in science learning. *The Journal of Learner-centered Curriculum and Instruction*, 18(8), 563-592. **KCI
- 19. Kang, D. Y., & Martin, S. (October, 2017). Challenging Pre-Service Science Teachers' Beliefs about Inclusion Science Classrooms through Experiential Learning. *The Journal of Special Education: Theory and Practice, 18(4), 327-356.* **KCI
- ^{20.} Ahn, W., Chu, H.-E., Kim, H.J., Park, H.K., & **Martin**, **S.** (June, 2016). 다문화 배경 언어학습자의 과학수업 내 소집단에서의 역할 및 상호작용 양상 탐색 [Analysis of culturally and linguistically diverse students' learning experiences when co-constructing scientific models in an Earth Science middle school classroom] (학습자중심교과교육학회 저널). *The Journal* of Learner-centered Curriculum and Instruction, 16(6), 921-950. **KCI [Korean Language/한국어]
- ^{21.} Martin, S., Im, S., & Song, J. (March, 2016). Editorial: Past, Present, and Future of Science, Mathematics, Engineering, and Technology Education Research and Practice in South Korea. *EURASIA Journal of Mathematics, Science and Technology Education*, 12(7), 1707-1710. **SSCI
- ^{22.} Park, J., Chu, H.E., & Martin, S. (February, 2016). Exploring how Korean teacher's attitudes and self-efficacy for using inquiry and language based teaching practices impacts learning for culturally and linguistically diverse students: Implications for science teacher education. EURASIA Journal of Mathematics, Science and Technology Education, 12(7), 1799-1841. ** SSCI
- 23. Martin, S., & Chu, H.E. (December, 2015). Asia-Pacific Science Education (APSE): Expanding opportunities for publishing science education research. *Asia-Pacific Science Education*, 1:3, 1-18.
- 24. Park, J., **Martin, S.**, & Chu, H.E. (August, 2015). Examining How Structures Shape Teacher and Student Agency in Science Classrooms in an Innovative Middle School: Implications for Policy and Practice. *Journal of the Korean Association for Science Education*, 35(4), 773-790. *DOI* : 10.14697/jkase.2015.35.4.0773 ** KCI
- 25. Murphy, C., & Martin, S. (July, 2015). Coteaching in teacher education: research and practice. *Asia-Pacific Journal of Teacher Education*. 43(4), 277-280 ** SSCI
- 26. Im, S., & Martin, S. (July, 2015). Using cogenerative dialogues to improve coteaching for language learner (LL) students in an inclusion science classroom. *Asia-Pacific Journal of Teacher Education*. 43(4), 355-369. ** SSCI
- 27. Park, M.Y., Ahn, W., Kwon, O.N., & **Martin, S.** (June, 2015). A study on the method of increasing reliability issues in the context of math and science classroom-based research. (학습자중심교과교육학회 저널). *The Journal of Learner-centered Curriculum and Instruction*, 15(6), 643-667. **KCI [Korean] [Korean Language/한국어]

- 28. Siry, C., & **Martin**, S. (September, 2014). Facilitating reflexivity in preservice science teacher education using video analysis and cogenerative dialogue in field-based methods courses. *EURASIA Journal of Mathematics, Science and Technology Education*, 10(5), 481-508. ** SSCI
- 29. Im, S., & Martin, S. (March, 2014). The meaning and significance of cogenerative dialogue in research and practice in the context of science education in Korea (학습자중심교과교육학회의

저널). The Journal of Learner-centered Curriculum and Instruction, 14(3), 17-43. **KCI [Korean Language/한국어]

- 30. Martin, S., & Im, S. (December, 2013). Promoting inclusive science education practices using cogenerative dialogues. (특수교육저널: 이론과 실천). *The Journal of Special Education: Theory and Practice*, 14(4), 233-268.
- Wassell, B., Martin, S., & Scantlebury, K. (December, 2013). Using cogenerative dialogues to foster community and support English Language Learner students' learning. *TESOL Journal*, 4(4), 759-771. **Scopus
- Bencze, J.L., Carter, L., Chiu, M.-H., Duit, R., Martin, S., Siry, C., Krajcik, J., Shin, N., Choi, K., Lee, H.-J., & Kim, S.-W. (June, 2013). Globalization and Science Instruction. *COSMOS*, 8(2), 139-152.
- 33. **Martin, S.**, & Siry, C. (August, 2011). Networks of practice in science education research: A global context. *Journal of Research in Science Teaching*, *48(6)*, 592-623. ** SSCI
- 34. **Martin, S.** (2010). "Act locally, publish globally": International/multi-disciplinary research efforts needed to understand the impact of globalization on science education. *Cultural Studies of Science Education*, 5(2), 263-273. **Scopus
- 35. Martin, S., & Siry, C. (2009). Raising critical issues in the analysis of gender and science in children's literature. *Cultural Studies of Science Education*, 4(4), 951-960. **Scopus
- 36. **Martin, S.**, & Scantlebury, K. (2009). More than a conversation: Using cogenerative dialogues in the professional development of high school chemistry teachers. *Educational Assessment, Evaluation and Accountability*, 21(2), pp. 119-1136. ** SSCI
- ^{37.} Jacobs, C., **Martin, S.**, & Otieno, T. (2008). A science lesson plan analysis instrument for formative and summative program evaluation. *Science Education*, 92(6), pp. 1096–1126. ** SSCI
- 38. **Martin, S.**, Bayne, G., & Lehner, E. (2007). Forum: Unraveling the power of creolized ontologies to strengthen science learning. *Cultural Studies of Science Education*, 2(2), pp. 461 473. **Scopus
- Martin, S., Milne, C., & Scantlebury, K. (2006). Eye rollers, risk-takers, and turn sharks: Target students in a professional science education program. *Journal of Research in Science Teaching*, 43 (8), pp. 819 851. ** SSCI
- 40. Martin, S. (2006). Where practice and theory intersect in the chemistry classroom: Using cogenerative dialogue to identify the critical point in science education. *Cultural Studies of Science Education*, 1(4), pp. 693-720. **Scopus
- 41. Geelan, D., Gilmer, P., & Martin, S. (2006). Forum: dialogue about dialogue cogeneration, research and science education. *Cultural Studies of Science Education*, 1(4), pp. 721-744. **Scopus

Chapters (Published in Peer Reviewed Books)

- 1. Chu, H.E., **Martin, S.,** Kim, E.S., & Lee, H.M. (in review). Arts-integrated STEM in Korean schools. In M.H.M. Cheng, A. Jones, and C. Buntting (Eds) in *Conceptualizing and Implementing STEM Education in Asia* (p.X-X). The Netherlands: Springer.
- 2. Espinet, M., Martin, S., Rodriguez., BouJaoude, S., & Msimanga, A. (2021). International perspectives on science education research in multicultural and multilingual contexts. In O.

Levrini, G. Tasquier, T. Amin, L. Branchetti, and, M. Levin, (Eds.): *Engaging with Contemporary Challenges through Science Education Research* (pp. 45-58). Contributions from Science Education Research (Vol 9): Springer. <u>https://doi.org/10.1007/978-3-030-74490-8_5</u>

- Chu, H.E., Kang, D. Y., Faisal, Martin, S.N., &, Lewis, N. (2021). Factors associated with students' engagement and participation in Year 11 and Year 12 Science Classrooms. In O. Levrini & G. Tasquier (Eds.), Electronic Proceedings of the ESERA 2019 Conference. *The beauty and pleasure of understanding: engaging with contemporary challenges through science education*, Part 2 (co-ed. G. Carvalho, V. Kind, & F. Le Hebel), (pp. 200-204). Bologna: ALMA MATER STUDIORUM University of Bologna. 978-88-945874-0-1978-88-945874-0-1 Access at https://www.dropbox.com/s/udwtpuyfl6qjz3p/Strand%2002.pdf?dl=0
- 4. Chu, H.E., Son, Y.A., Koo, H.K., **Martin, S.**, & Treagust, D.F. (Nov 2019). The potential of arts-integrated STEM approaches to promote students' science knowledge construction and a positive perception of science learning. In Y.S. Hsu and Y.F. Yeh (Eds) *Asia-Pacific STEM Teaching Practices: From Theoretical frameworks to practices* (p.17-38). The Netherlands: Springer.
- ^{5.} Martin, S., & Kang, D.Y. (June, 2019). 미국 작은학교 운동의 성과와 시사점 (An examination of small school movement in the United States: Implications for Practice). In J. Song, et al., (Eds) 미래 학교교육: 무엇을 어떻게 준비할 것인가? [The Future of School Education: What and how to prepare?] (pp. 55-76). Seoul, Republic of Korea: Bookshill. ^[Korean Language/한국어]
- 6. **Martin, S.**, & Kang, D.Y. (August, 2018). Exploring the transformative potential of experiential learning: Fostering positive attitudes towards inclusive education for special education needs (SEN) learners in Korea. In L. Bryan and K. Tobin (Eds), *Critical Issues and Bold Visions for Science Education: The Road Ahead*, (p. 101-125). Rotterdam, The Netherlands: Brill.
- 7. Kang, D.Y., & Martin, S. (June, 2018). 사회문화적 관점에서 본 동아시아 과학교실의 참여 특징. In J. Song, Y. Jeong, S. Martin, J. Na, J. Jang, & D. Kang (Eds), 교실과 문화: 동아시아 과학 교실문화의 이해 [Classroom and Culture: Understanding the Science Classroom Culture of East Asia, (p. 123-155). Seoul, Republic of Korea: Bookshill. ^[Korean Language/한국어]
- 8. **Martin, S.** (January, 2018). Confronting prevailing narratives of student engagement and participation in science classrooms. In L. Bryan and K. Tobin (Eds), *13 Questions: Reframing Education's Conversation: Science*, (p. 125-148). New York: Peter Lang.
- Martin, S., Park, J., & Chu, H.E. (January, 2016). Korean teachers' attitudes and self-efficacy for using inquiry-teaching practices with culturally and linguistically diverse students: Implications for science teacher education. In J. Lavonen, K. Juuti, J. Lampiselkä, A. Uitto, & K. Hahl (Eds), *Electronic Proceedings of the ESERA 2015 Conference: Science Education Research: Engaging learners for a sustainable future.* Part [12] (Co-Ed., M. Enghag, E. Henriksen, & C. Nicolaou), (p. 1910-1921). Helsinki: Finland. European Science Education Research Association. ISBN 978-951-51-1541-6.
- 10. **Martin, S.,** Choe, S.-U., Kim, C.-J., & Kwak, Y. (January, 2014). Employing a socio-historical perspective for understanding the impact of ideology and policy on educational achievement in the Republic of Korea. In J.V. Clark (Ed), *Closing the achievement gap from an international perspective: Transforming STEM for effective education* (p. 229-250). The Netherlands: Springer.
- 11. **Martin, S.,** Wassell, B., & Scantlebury, K. (March, 2013). Frameworks for examining the intersections of race, ethnicity, class and gender: An analysis of research on English language learners in K-12 science education. In J.A. Bianchini, V.A. Akerson, A. Calabrese Barton, O.

Lee. & A.J. Rodriguez, (Eds) *Moving the Equity Agenda Forward: Equity Research, Practice, and Policy in Science Education* (pp. 81-98). The Netherlands: Springer.

- Park, J.P., & Martin, S. (December, 2012). Enhancing Science Teaching for English Language Learner (ELL) Students Using Observation and Dialogue. In Markic, S., Eilks, I., di Fuccia, D., & Ralle, B. [eds.]. *Issues of Heterogeneity and Cultural Diversity in Science Education and Science Education Research* (p. 179-183). Aachen: Shaker Verlag.
- Martin, S. & Siry, C. (December, 2012). Using video in science teacher education: An analysis of the utilization of video-based media by teacher educators and researchers. In B. Fraser, K. Tobin, & C. Campbell [eds.] *Second International handbook of science teaching and learning* (p. 417-433). The Netherlands: Springer.
- 14. **Martin, S.** (2010). Critical pedagogy of place: a framework for understanding the relationships between people in shared (contested) places. In D. Tippins, M. Mueller, M. van Eijck, and J. Adams (Eds) *Cultural Studies and Environmentalism: The confluence of EcoJustice, Place-based (Science) Education, and Indigenous Knowledge Systems* (p. 257-268). The Netherlands: Springer.
- Scantlebury, K. & Martin, S. (2010). How does she know? Re-envisioning conceptual change from feminist perspectives. In K. Tobin and M.-W. Roth (Eds) *Re/structuring science education: Reuniting sociological and psychological perspectives* (p. 173-186). The Netherlands: Springer.
- Siry, C. & Martin, S. (2010). Coteaching in science education courses: Transforming science teacher preparation through shared responsibility. Invited chapter for: C. Murphy & K. Scantlebury [eds.] *Coteaching in international contexts: Research and practice* (p. 57-78). The Netherlands: Springer.
- 17. Kirch, S. & Martin, S. (2010). Taking women students seriously: Employing inclusive approaches to science teacher education in primary science. In K. Scantlebury, J.B. Kahle, & S. Martin [Eds.], *Re-visioning science education from feminist perspectives: Challenges, choices and careers* (p.125-134). The Netherlands: Sense Publishers.
- Scantlebury, K., & Martin, S. (2010). Women in Science Education: Introduction & Historical Overview. In K. Scantlebury, J.B. Kahle, & S. Martin [Eds.], *Re-visioning science education from feminist perspectives: Challenges, choices and careers* (p. 3-10). The Netherlands: Sense Publishers.
- 19. Scantlebury, K., & Martin, S. (2010). Laughter, solidarity, support, and love. In K. Scantlebury, J.B. Kahle, & S. Martin [Eds.], *Re-visioning science education from feminist perspectives: Challenges, choices and careers* (p. 215-220). The Netherlands: Sense Publishers.
- 20. Martin, S. (2009). Learning to teach science. In K. Tobin & W.-M. Roth [Eds.], *World of Science Education: North America* (p. 567-586). The Netherlands: Sense Publishers.
- 21. Martin, S., & Flohr, L. (2007). From teacher to researcher and beyond: Our evolving relationship with science education research. In S. Ritchie [Ed.], *Research collaboration: Relationships and praxis* (p. 71-81). The Netherlands: Sense Publishers.
- 22. Malow-Iroff, M., Benhar, M., & **Martin, S.** (2007). Educational reform and the child with disabilities. In H. Johnson & A. Salz [Eds.], *Authentic educational reform: Pushing against the compassionate conservative agenda* (p. 71-85). New York: Lawrence Erlbaum Publishers.
- 23. Martin, S. (2006). Teachers as researchers. In K. Tobin [Ed.] *Teaching and learning science: A handbook* (p. 227-233). New York: Praeger Publishing.
- 24. Martin, S. (2005). Not so strange in a strange land: An autobiographical approach to becoming a science teacher in an urban high school. In K. Tobin, R. Elmesky, & G. Seiler [Eds.], *Improving urban science education: New roles for teachers, students, and researchers* (p. 225 243). New York: Rowman & Littlefield Publishers, Inc. <u>**Note:</u> Book is the winner of American Library Association (ALA) *Choice Magazine's* Outstanding Academic Title for 2006.

Published Research Reports

- 1. **Martin, S.,** Ko, J., Eom, K., & Ryu, Y.K. (April, 2018). *Report: Examining Issues Related to the Internationalization of the College of Education (CoE): Focus on International Students' Experiences in the CoE*. Korea: College of Education, Seoul National University.
- 2. Park, S.C., Lee, K.H., Lee, Y.H., Jeong, D.W., **Martin, S.,** Kim, G.Y. & Park, J.P. (2012). Report: 변화하는 한국 사회에 대응하는 교원양성체제 연구. [A study of teacher preparation programs in response to changes in Korean society.] Korea: College of Education, Seoul National University. ^[Korean and English Language/한국어/영어]
- Egger, B., Finchum-Sung, H., Gress, D.R., Kim, J., van Koert, O., Lee, E.E., Martin, S., Song, J., & Wright, D. (March, 2018). *Policies to Promote Faculty Diversity for Improving Internationalization at Seoul National University*. Study was conducted by request of the SNU Diversity Council and was funded and published by the Office of Planning, Seoul National University. [http://diversity.snu.ac.kr/en/node/59]

DISSERTATION AND THESES

- Martin, S. (1995). *The neuronal swim-circuit in leeches*. Bachelor of Science thesis, Bryn Mawr College, Bryn Mawr, PA.
- Martin, S. (1998). *Do amoebas feel love? A constructivist approach to science teaching*. Master's of Elementary Education thesis, University of Pennsylvania, Philadelphia, PA.
- Martin, S. (2002). *Fun in the sun? Sunscreen efficacy and safety*. Master's of Chemistry Education thesis, University of Pennsylvania, Philadelphia, PA.
- Martin, S.* (May, 2005). *The social and cultural dimensions of successful teaching and learning in an urban science classroom*. Doctoral dissertation, Science and Mathematics Education Centre, Curtin University, Perth, Australia. * Finalist for NARST Doctoral Dissertation Award, 2005.

GRANT FUNDING

Submitted and reviewed

National Research Foundation of Korea

(June 2019). *GloCal Social Changes and Educational Responses (GCER) – Establishing the ConnectED Complex for Low Fertility and Hyper-connected Society.* (4-year study submitted for review as Co-<u>PI</u> for 1,825,000 million KRW ~\$183,000 USD).

아무레퍼시픽재단 (Amore Pacific Foundation)

(June 2019). Promoting gender equality through an education program designed to challenge occupational gender stereotypes in young children. (1-year study submitted for review as Co-<u>PI</u> for 10,000 million KRW \sim \$10,000 USD).

National Research Foundation of Korea,

(May 2017). Exploring exclusive or inclusive factors shaping accessibility and learning in science museums: focusing on CLD and SEN learners. [과학관 점근성 및 학습에 대한 포용적 또는 배타적 요인탐색: 다문화배경•특수교육대상 학습자를 중심으로]. (2-year study submitted for review as <u>PI</u> for 40,000 million KRW ~\$40,000 USD).

Funded

Seoul National University Fund (700-20210040)

(May 2021 – April 2022). 비대면 수업 환경에서 소외된 학습자를 위한 디지털 과학 텍스트 리딩 리터러시 강화 프로그램 개발 및 교육 효과 탐색 [Developing a digital science text reading literacy reinforcement program for marginalized learners in a non-face-toface classroom environment and exploring the educational effects.] (1-year study funded <u>PI</u> for 15,000,000 million KRW ~\$15,000 USD).

과학기술정보통신부 Ministry of Science, Technology Information, & Communication ⁽⁷⁰⁰⁻²⁰²¹⁰⁰²⁰⁾

(Mar 2021 – Feb 2023). 미래 확장시민과학자 양성을 위한 STEAM 융합교육연구 -IoT 기기 제작 및 활용을 통한 대기환경 문제 해결을 중심으로. STEAM Convergence Education Research for Cultivating Future Expansion Citizen Scientists -Focused on Resolving Air Environment Problems through IoT Device Manufacturing and Utilization. (2-year study funded Co-<u>PI</u> for 100,000,000 million KRW ~\$100,000 USD).

과학기술정보통신부 Ministry of Science, Technology Information, & Communication⁽⁷⁰⁰⁻²⁰²⁰⁰⁰⁸⁷⁾

(July 2020 – June 2021). 위기에서 회복으로: COVID-19에 대응하는 과학교육 전문가들에 대한 국제 비교 연구. From Crisis to Recovery: An International Comparative Study of Science Education Professionals Response to COVID-19. (1-year study funded as <u>PI</u> for 50,000,000 million KRW ~\$50,000 USD). - 700-20200087

SNU, College of Education, Interdisciplinary Research

(June, 1 2019 – Dec 31, 2019). Development and Implementation of a Language Integrated STEAM Education Program for Korean Language Learner(KLL) Students. (6 month seed grant funded as <u>PI</u> for 2,500,000 KRW \sim \$2,0500 USD).

Ministry of Education 교육부 (700-20200084)

(Feb 2019). 사회적 실천 지향 SSI(과학 관련 사회적 쟁점) 학교 동아리 활동을 통한 글로벌 환경 위험 대응 역량 함양. Cultivate Global Environmental Risk Response Through Action-Oriented SSI (Socio-Scientific Issues) School Club Activity. (2-year study submitted for review as Co-<u>PI</u> for 100,000,000 million KRW ~\$100,000 USD).

SNU, College of Education, Interdisciplinary Research

(June, 1 2017 – Dec 31, 2017). Examining Issues Related to the Internationalization of the CoE.

(6 month seed grant funded as PI for 5,000,000 KRW ~\$5,000 USD).

SNU, College of Education, Interdisciplinary Research

(May, 2017 – Dec, 2017). *Examining classroom communication to improve subject learning ability for multicultural students* [다문화 배경 학습자의 교과 학습 역량 향상을 위한 교실 의사소통 연구]. (6 month seed grant funded as Co-<u>PI</u> for 2,0000 KRW ~\$2,000 USD).

Office of Education Research (OER), Ministry of Education, Singapore

(August 2017 – February 2020). *Science Teachers and Teaching of Special Education Needs Students*. Invited by Dr. Teo Tang Wee (PI) (National Institute of Education, Nanyang Technological University) to serve as Consultant for project. (3-year study funded as consultant (\$4,000USD/year for consulting).

Office of Education Research (OER), Ministry of Education, Singapore

(Aug 01, 2016 – Feb 28, 2019). "We "own" the teachers: Understanding subcultures of Singapore lower track science classrooms. Invited by Drs. Teo Tang Wee (PI) and Aik-Ling Tan (Co-PI) (National Institute of Education, Nanyang Technological University) to serve as Consultant for project. (3-year study funded as consultant (\$4,000USD/year for consulting).

Ministry of Education, 한국사회과학연구지원(SSK)

(Sept 1, 2016 – Aug 31, 2019). Global Social Changes and Educational Response (GCER): Innovations in Classroom Culture and Educational System for Low Fertility and Hyperconnected Society. [글로컬 사회 변동과 교육적 대응 – 저출산-초연결 사회에서의 교실문화체제 혁신]. (3-year study funded as Co-<u>PI</u> for 690 million KRW ~\$690,000 USD).

National Research Foundation of Korea, BK 과학교육사업단

(Mar, 2016 – Aug, 2020). "*Together*" *Science Education for the Future (ToSEF)* [미래사회를 사범대학는 '더불어'과학교육 사업단]. (4-year study funded as Co-<u>PI</u> for 379.8 million KRW ~\$380,000 USD).

Department of Foreign Affairs and Trade, Australia – Korea grant

(November 2015 - January 2017). *The Fusion of Science and Arts - Collaborative development by Australian and Korean science teachers of an interactive digital platform to enhance STEAM*. (1-year study funded as Co-<u>PI</u> for 25 million KRW ~\$30,000 AUD).

National Research Foundation of Korea, Interdisciplinary Basic Research

(June, 2014 - May, 2015). Creation of Sustainable Social Science Education Research [지속가능 창조사회 과학교육연구사업단]. (1-year study submitted as Co-<u>PI</u> for 220 million KRW ~\$220,000USD).

National Research Foundation of Korea, SSK - Network

(September, 2013 – August, 2016). Looking inside the Science & Mathematics Classroom of East Asian Regions: The Features and Dynamics Revealed through Socio-cultural Approaches (3-year study funded as Co-<u>PI</u> for 291 million KRW ~\$300,000USD).

National Research Foundation of Korea, New Researcher Grant

(May, 2013 – April, 2016). A longitudinal, mixed-methods study examining and improving the beliefs and practices of teachers in science classrooms with multicultural and/or Korean Language Learners. (3-year study funded as <u>PI</u> for 60 million KRW ~\$60,000USD).

Office of Education Research (OER), Ministry of Education, Singapore

(December, 2013). *Examining Normal Academic/Technical Students' Science Learning: An Exploratory Mixed Methods Study from a Sociological and Cultural Lens.* Invited by Drs. Teo Tang Wee (PI) and Jennifer Yeo (Co-PI) (National Institute of Education, Nanyang Technological University) to serve as Consultant for project. (3-year study funded as consultant (\$4,000USD/year for consulting).

Office of Education Research (OER), Ministry of Education, Luxembourg

(January 2013). Analyzing changes in student questions in the context of inquiry-based science education (ACQUIRE). Invited by Dr. Christina Siry (University of Luxembourg) to serve as Scientific Advisor for doctoral project for Ms. Sara Wilmes. Study funds Ms. Wilmes for three years.

Faculty Research Fund, College of Education, Seoul National University

(August, 2012). *Teacher Preparation Project*. (10 million KRW over 5 months ~\$10,000). Collaborative research grant awarded as (Co-<u>PI</u>) with Dr. Sung-Choon Park (PI), and Drs. Kyeong-Hwa Lee, Dong Wook Jeong, Young-ho Lee, and Ga Young Kim (Co-PIs).

New Faculty Research Settlement Fund, Seoul National University

(March, 2011). Examining the impact of second language acquisition on science teaching and learning in middle school science classrooms. (15 million KRW over one year ~\$15,000). Awarded as (PI).

Faculty Research Fund, College of Education, Seoul National University

(October, 2011). A review of the literature examining the impact of primary and secondary language acquisition on teaching and learning in the context of K-12 science. (5 million KRW over one year \sim \$5,000). Awarded as (<u>PI</u>).

National Science Foundation (10-516) - Research on Gender in Science and Engineering (GSE)

(September, 2010) *G-SPELL: Gender and Science Proficiency for English Language Learners.* (\$520,437). Collaborative Research grant between (PI) Dr. Martin (\$282,437) Drexel University, (PI), Dr. Beth Wassell (\$151,000) Rowan University (PI), and Dr. Kathryn Scantlebury (\$87,000) University of Delaware (PI).

National Research Foundation of Korea, International Research Collaboration Grant

(September, 2009). Using cogenerative dialogues to explore experiences of Korean English Language Learners in the science classroom: linguistic proficiency, socio-cultural background, and learning science. (27 million KRW over one year). Awarded as (Co-<u>PI</u>) in conjunction with Dr. Sungmin Im (PI), Daegu University, Korea.

National Defense Education Program, NDEP

(December, 2009). Development of curricular enhancements for the greater Philadelphia Sea

Perch Challenge. (\$83,000). Awarded as (<u>Co-PI</u>) in conjunction with (PI) Dr. Anthony Lowman (CoE), (Co-PI) Joanne Ferroni (CoE), and (Co-PI) Karen Kelly (CoMAD).

University of Pennsylvania Science Teacher Institute, Penn STI mini-grant

(February, 2008). Sneaky Science: Using children's literature to sneak science into the elementary and middle school curriculum. (\$1,000). Awarded as (PI).

Professional Staff Congress 38

(April, 2007). Cogenerating inclusive science education practices through Cross-discipline collaboration. (\$6,000). Awarded as (PI).

QC Research Enhancement Fund

(January, 2007). *Funding for NSF grant-writing initiative*. (\$9,750). Awarded as (<u>PI</u>) with (Co-PI) Dr. Susan Kirch Queens College, CUNY and (Co-PI) Dr. Paul Longo, Queens College, CUNY.

QC Research Enhancement Fund

(January, 2007). *Funding for PSC-CUNY initiative to develop future grants.* (\$4,500). Awarded as (<u>PI</u>) with (Co-PI) Dr. Natalia Holtzman, Queens College, CUNY.

Raphell Sims Lakowitz Memorial Foundation

(May, 2006) Annual funds to *support Raphell's Scientist in the Classroom/Scientist in the Field* project at the Queens College School for Math, Science, and Technology (\$1,000 annually). Awarded as (<u>Co-PI</u>) with Dr. Susan Kirch, Queens College, CUNY.

PROFESSIONAL DISTINCTIONS / AWARDS

Korean Association for Science Education (KASE)

Outstanding Research Poster Presentation, January 2022

Kim, M.J., Lee, H., & Martin, S. (2022). 보편적 학습설계 기반 과학관 유튜브 교육 콘텐츠 체크리스트 개발. Daegu University, Daegu, Republic of Korea.

Korean Association for Science Education (KASE)

Award of Merit, January 2022

Awarded for significant contributions to the development and support of the KASE sponsored journal, Asia-Pacific Science Education. The journal was included to SCOPUS index.

Korean Association for Science Education (KASE)

Asia-Pacific Science Education – Best Paper of the Year, July 2020

Awarded for best paper published in the journal for the previous year based on number of article accesses by the readers.

Seoul National University

Excellence in Teaching Award, May 2017

Awarded for innovations and excellence in teaching to ten faculty members from different colleges across the university each year. This was the first time the award was given to a non-Korean, international faculty member.

National Taiwan Normal University

Distinguished Visiting Professorship, Global Networking Talent Project

January 14 - February 24, 2016; July 9 - August 29, 2016

January 13 - February 23, 2017; July 10 - August 11, 2017

Invited by Dr. Chun-Yen Cheng, Director of the Science Education Center at National Taiwan Normal University as a visiting scholar to share techniques in qualitative ethnographic research methods with doctoral students and faculty. Engaged in series of small group research meetings and seminars with all science content faculty areas and their science education doctoral students during winter and summer semesters in 2016 and 2017.

Outstanding Research Poster Presentation, ECCO-SM International Conference

Kim, E.J., & Martin, S. (January, 2015). Understanding Student and Teacher Interactions in Korean High School Science Classrooms from a Structure and Agency Dialectic Perspective. Seoul, Republic of Korea.

Outstanding Research Poster Presentation, International Science Educator and Teachers (ISET) Park, J., Ahn, W., & **Martin, S**. (July, 2015). *Analyzing teaching practices using RTOP and SIOP observational tools: Implications for the inclusion of culturally and linguistically diverse students in Korean science classrooms*. Bangkok, Thailand.

Outstanding Research Poster Presentation, Korean Earth Science Education Association

Park, J., & Martin, S. (September, 2014). *Examining how teacher's attitudes about inquiry and language learners can shape students' opportunities to learn science*. Seoul, Republic of Korea.

National Association for Research in Science Teaching

Nominated: NARST Early Career Award 2010

The NARST Early Career Research Award acknowledges contributions to science education through research by individuals during the five years immediately following receipt of the doctoral degree.

Dean's Faculty Scholarship Award

Drexel University, School of Education 2010 Award presented at the School of Education Honors Day and awarded in recognition of excellence in scholarship by a faculty member.

Association for Science Teacher Education

Award IV – Innovations in Teaching Science Teachers - 2008
Martin, S., & Scantlebury, K. (2008). More than a conversation: Using cogenerative dialogues in the professional development of high school chemistry teachers.
http://theaste.org/memberresources/awards/2008/Award%20IV/Award%20IV.htm

City University of New York - Academy for the Humanities

Nomination: Feliks Gross Endowment Award for Outstanding Research by Junior Faculty 2007 Awarded to a junior faculty member who shows promise of making a worthwhile contribution through research to their field, the university and academia as a whole.

National Association for Research in Science Teaching

Nominated for Outstanding Doctoral Dissertation of the Year Award Finalist in the Cultural and Social Sciences Category for 2005

MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS

I am a member of five professional associations involved in: science, educational research, science teaching, and science teacher education.

- <u>Association for Science Teacher Education (ASTE).</u>
- <u>East-Asian Association for Science Education (EASE)</u>
- European Science Education Research Association (ESERA).
- <u>Korean Association of Science Educators (KASE)</u>
- <u>National Association for Research in Science Teaching (NARST).</u>

INTERNATIONAL / DOMESTIC CONFERENCE PRESENTATIONS

Submitted

- Cho, E.B., Lee, J.Y., Noh, J.M., & Martin, S. (March, 2022). Development of a Multicultural Environmental Education(MCEE) Content Analysis Framework: Focus on the 2015 Revised Korean Secondary School Environmental Curriculum and Content Analysis Research. Submitted for oral presentation for the annual meeting of the Korean Association for Multicultural Education (KAME) in at Seoul National University, May 19-21, 2022, Seoul, Republic of Korea
- Chu' H.Y., Kim' Y., Kim' H.M., Martin' S., & Treagust' D. (March, 2022). An exploratory study on how the STEAM approach influences students' engagement in science learning. Submitted for oral presentation for the annual meeting of the Australian Science Education Research Association (ASERA) Curtin University, June 28th – July 1st, 2022, Perth, Australia.

Accepted

- 3. Eldridge, S., **Martin, S.**, & Steele, D. *(March, 2022). Queering science teacher education and research: Toward gender, sex, and sexuality inclusive science teaching practices.* Pre-Conference Workshop (3 hours) presented at the 2022 National Association for Research in Science Teaching (NARST) Hybrid conference, March 27-30, 2022, Vancouver, Canada.
- 4. **Martin, S.** (March, 2022). *How to get your research published*? Invited Publications Advisory Committee sponsored symposium presented at the 2022 National Association for Research in Science Teaching (NARST) Hybrid conference, March 27-30, 2022, Vancouver, Canada.
- 5. Martin, S. (August, 2019). International Perspectives on Science Education in Multicultural and Multilingual Contexts. Invited ESERA sponsored session presented at the 2022 National Association for Research in Science Teaching (NARST) Hybrid conference, March 27-30, 2022, Vancouver, Canada.
- 6. Martin, S. (August, 2019). Promoting an International Focus on Research and Science Teacher Education to Improve Science and Special Education. Invited International Committee sponsored session to be presented at the 2022 National Association for Research in Science Teaching (NARST) Hybrid conference, March 27-30, 2022, Vancouver, Canada.

Presented

 Lee, J., Cho, E., Eom, K., & Martin, S. (January, 2022). Development of Digital Science Text Reading Literacy Strengthening Program. Poster presentation to the Korean Association for Science Education (KASE) conference presented virtually at Daegu University, Daegu, Korea on Jan 17-18, 2022.

- 8. Kim, M.J., Lee, H. & Martin, S. (January, 2022). 보편적 학습설계 기반 과학관 유튜브 교육 콘텐츠 체크리스트 개발 (Development of a universal learning design-based science museum YouTube educational content checklist). Poster presentation to the Korean Association for Science Education (KASE) conference presented virtually at Daegu University, Daegu, Korea on Jan 17-18, 2022.
- Ha, A.M., Chu, H.E., Martin, S., & Kim, C.J. (January, 2022). *Designing an evaluation rubric to assess SSI-based STEAM programs in science classrooms*. Oral presentation to the Korean Association for Science Education (KASE) conference presented virtually at Daegu University, Daegu, Korea on Jan 17-18, 2022.
- Martin, S. (December, 2021). Four case studies exploring the impact of Covid-19 on science teaching and learning in formal and informal settings: Lessons learned for science teacher education and research. Presentation accepted for the 2nd International Conference on Innovation in Learning Instruction and Teacher Education (ILITE), Hanoi University of Education, Hanoi, Vietnam, December 11-12, 2021.
- 11. Kim, M.J., & Martin, S. (November, 2021). Exploring the potential for science museums' inclusive science communication via YouTube (과학관 유튜브의 통합 과학 커뮤니케이션 환경으로서의 가능성 탐색). Presentation for the 2021 International Symposium of Science Museums (ISSM). Daejeon National Science Museum, Daejeon, Republic of Korea, November 4-5, 2021.
- Lee, G.G., Kang, D.Y., Kim, M.J., Hong, H.G., & Martin, S. (October 2021). University Students' Reponses to the Online Science Lab Sessions Provoked by the COVID-19. Oral presentation to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- 13. Kim, Y.B., & Martin, S. (October, 2021). A Study on Korean Teachers' Perceptions and Teaching Practices of Students with Special Education Needs in Inclusive Science Classes. Poster presented virtually to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- 14. Villegas Contreras, A.N., Shin, D., Lee, Y.J., & Martin, S. (October, 2021). An analysis of the Mexican Education System Response to COVID-19 with a focus on Primary Teachers' Perspectives. Poster presented virtually to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- 15. Lee, J.Y., Shin, D., Villegas, A., & Martin, S. (October 2021). An analysis of the Korean Elementary Education System Response to COVID-19 with a focus on Teachers' Perspectives. Poster presented virtually to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- 16. Faisal., & Martin, S. (October 2021). Exploring Indonesian Biology Teachers' Perceptions of Socioscientific Issues. Oral presentation to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- Shin, D., & Martin, S. (October 2021). Development of an online curriculum for environmental educators to experience vermicomposting. Poster presented virtually to the 21st International Conference on Education Research (ICER) at Seoul National University, Seoul, Korea on October 20-22, 2021.
- 18. Lee, H., Kim, M.J., Kang, D.Y., & Martin, S. (August 2021). *Examining informal science education responses to covid-19 in Korea: the future of untact science learning*. Submitted to symposium entitled "Working towards responsive science education pedagogies in times of crisis: developing (in) hybrid spaces", to be presented at 2021 European Association for Science

Education Research (ESERA) Virtual conference (Braga Portugal), August 30 – September 3, 2021.

- 19. Martin, S. (August, 2021). Promoting an International Agenda for Research/Science Teacher Education to Improve Science and Special Education. Invited NARST sponsored session to be presented at 2021 European Association for Science Education Research (ESERA) Virtual conference (Braga Portugal), August 30 September 3, 2021.
- 20. Mang, A., Chu, H.E., Martin, S., & Kim, C.J. (July 2021). *Theoretical Approach to SSI-STEAM Teaching: Developing an SSI-STEAM program.* Oral presentation the 2021 Australian Science Education Research Association (ASERA) Virtual conference, University of South Adelaide, Australia, June 30- July 2, 2021.
- Martin, S. (April 2021). Crossing Boundaries: Examining and Problematizing Interdisciplinarity in Science Education. Presider for the International Committee sponsored symposium for ESERA to present at the 2021 National Association for Research in Science Teaching (NARST) Virtual conference, April 7-10, 2021.
- 22. Martin, S. (April, 2021). Promoting an International Focus on Research and Science Teacher Education to Improve Science and Special Education. Invited International Committee sponsored session presented at 2021 National Association for Research in Science Teaching (NARST) Virtual conference, April 7-10, 2021.
- 23. Martin, S. (April 2021). Evaluating Intercultural STEAM Program in Australia-Korea Contexts: Teachers' Attitudes and Beliefs towards STEAM. Poster presented at 2021 National Association for Research in Science Teaching (NARST) Virtual conference, April 7-10, 2021.
- 24. **Martin, S.** (April 2021). *How to get your research published*? Invited Publications Advisory Committee sponsored symposium presented at 2021 National Association for Research in Science Teaching (NARST) Virtual conference, April 7-10, 2021.
- 25. Lee, G.G., Kang, D.Y., Kim, M.J., Hong, H.G., & Martin, S. (January, 2021). Emergence of remote lab sessions in emergency situation: university students' perceptions in COVID-19 pandemic contexts. Virtual 2021 Korean Association of Science Education (KASE) conference. Seoul, Republic of Korea, January 28-29, 2021.
- 26. Lee, H., Kim, M.J., Kang, D.Y., & Martin, S. (January, 2021). Evolution of non-face-to-face education: A case study of a science center in response to COVID-19. Oral presentation to the Virtual 2021 Korean Association of Science Education (KASE) conference. Seoul, Republic of Korea, January 28-29, 2021.
- 27. Eom, K., Kim, Y., Lee, J., Kim, M., & Martin, S. (January, 2021). Lessons learned from international responses by science educators to COVID-19. Oral presentation to the Virtual 2020 SNU-HU-NTNU-KU Joint Symposium. Hokkaido University, Hokkaido, Japan, January 6-7, 2021.
- 28. Martin, S., Kim, C.J., & Yoo, J. (January, 2021). *Strategies for maintaining and strengthening research collaboration in post-COVID era*. Oral presentation to the Virtual 2020 SNU-HU-NTNU-KU Joint Symposium. Hokkaido University, Hokkaido, Japan, January 6-7, 2021.
- 29. Martin, S. (January, 2021). *Chair for Invited Plenary Session*. Virtual 2021 Korean Association of Science Education (KASE) conference. Seoul, Republic of Korea, January 28-29, 2021.
- 30. Martin, S. (December, 2020). *Creating inclusive science learning environments using innovations in technology developed in partnership with diverse community members*. Workshop presentation to 12th annual Chungpa International Conference. Daegu University, Daegu, Republic of Korea, December 18, 2020.
- 31. Martin, S. (November, 2020). From disruption to recovery during Covid-19: Responses by science educators in formal and informal settings. Seoul National University, Seoul, Republic of Korea, November 6; 13, 2020.

- Martin, S. (November, 2020). Promoting inclusive practices to ensure equitable quality education in informal science learning environments. Invited Symposium speaker for the International Symposium of Science Museums (ISSM). Daejeon National Science Museum, Daejeon, Republic of Korea, November 5, 2020.
- Martin, S. (August, 2019). International Perspectives on Science Education in Multicultural and Multilingual Contexts. Invited ESERA sponsored session to be presented at 2020 National Association for Research in Science Teaching (NARST) conference. Portland, OR, USA, March 15-18, 2020.
- 34. Martin, S. (August, 2019). Promoting an International Focus on Research and Science Teacher Education to Improve Science and Special Education. Invited International Committee sponsored session to be presented at 2020 National Association for Research in Science Teaching (NARST) conference. Portland, OR, USA, March 15-18, 2020.
- 35. Martin, S. (August, 2019). Evaluating Intercultural STEAM Program in Australia-Korea Contexts: Teachers' Attitudes and Beliefs towards STEAM. Poster to be presented at 2020 National Association for Research in Science Teaching (NARST) conference. Portland, OR, USA, March 15-18, 2020.
- 36. Sprong, L., Allen, K., & Martin, S. (September, 2019). An Exploratory Study Examining Gender-Sensitivity within Environmental Education to Minimize Gender Differences: Potential Impacts for Sustainable Development. Poster presentation to the 2019 International Conference on Sustainability Education (ICSE) conference, India Habitat Centre, New Delhi, India, September 9-10, 2019
- 37. Kang, D.Y., Chu, H.E., Kim, H.J., & Choe, S.E., & Martin, S. (August, 2019). Examining the Impact of Korean as Second Language (KSL) Education Policy on Science Teaching and Learning in K-12 Korean Classrooms. Oral presentation to the 2019 European Science Education Research Association (ESERA) conference. Bologna, Italy, August 26-30, 2019.
- 38. Chu, H.E., Lewis, N., Kang, D.Y., Fasial, & Martin, S. (August, 2019). Factors Associated with Students' Engagement and Participation in Year 11 and 12 Science Classrooms. Oral presentation to the 2019 European Science Education Research Association (ESERA) conference. Bologna, Italy, August 26-30, 2019.
- 39. Kang, D.Y., & Martin, S. (February, 2019). EPIC-S 설문지를 통한 고등학교 학생들의 과학 수업 참여 인식 분석. Oral presentation for the 2018-2019 SSK Networking 3rd Symposium in Seoul, Republic of Korea on February 15, 2019.
- 40. Faisal & Martin, S. (February, 2019). *Promoting Scientific Literacy Through SSI-Based Instructional Program: Implication for Indonesian Science Education*. Poster presentation to the 2019 International Conference of GCER. Seoul National University of Education, Seoul, Republic of Korea, February 12, 2019.
- 41. Eom, K., & Martin, S. (February, 2019). *Elements of Nature of Science in Science-based inspiration games.* Poster presentation to the 2019 International Conference of GCER. Seoul National University of Education, Seoul, Republic of Korea, February 12, 2019.
- 42. Eom, K., Hwang, M. Y., & **Martin, S.** (January, 2019). *Elements of the nature of the science of science-based inspiration games.* Poster presentation to the East Asian Science Education (EASE) conference. Oral presentation to the Korean Association of Science Education (KASE) conference. Korea National University of Education, Cheongju, Republic of Korea, January 24-26, 2019.
- 43. Kang, D. Y., Faisal, Chu, H.E., & Martin, S. (January, 2019). Comparison analysis of factors impacting on students' participation styles in Korea and Indonesia using EPIC-S questionnaire. Poster presentation to the Korean Association of Science Education (KASE) conference. Korea National University of Education, Cheongju, Republic of Korea, January 24-26, 2019.

- 44. Sprong, L., Allen, K., & Martin, S. (January, 2019). *Examining the Potential for Gender-Sensitivity in Environmental Education to Minimize Gender Differences*. Poster presentation to the Korean Association of Science Education (KASE) conference. Korea National University of Education, Cheongju, Republic of Korea, January 24-26, 2019.
- 45. Faisal, Chu, H.E., & Martin, S. (January, 2019). *Exploring Indonesian University Students' Perceptions About Participation and Engagement in Science Classrooms*. Oral presentation to the Korean Association of Science Education (KASE) conference. Korea National University of Education, Cheongju, Republic of Korea, January 24-26, 2019.
- 46. Park, J., Kang, D.Y., & Martin, S. (January, 2019). *Meet the Editors of Asia Pacific Science Education: How to communicate with international journals.* Pre-Conference workshop for the Korean Association of Science Education (KASE) conference. Korea National University of Education, Cheongju, Republic of Korea, January 24-26, 2019.
- 47. Lee, D.-S., & Martin, S. (December, 2018). *Exploring Administrators' Beliefs about Diverse Science Learners in Rural and Urban Areas in Korea*. Poster presentation to the East Asian Science Education (EASE) conference. National Dong Hwa University, Hualien, Taiwan, November 29-December 2, 2018.
- 48. Kang, D.Y., Chu, H.E., & Martin, S. (December 2018). *Analysis of Students' Engagement and Participation in Classroom Science (EPIC-S) from Korea*. Oral presentation to the East Asian Science Education (EASE) conference. National Dong Hwa University, Hualien, Taiwan, November 29-December 2, 2018.
- 49. Kang, D.Y., Lee, D.S., Gi, G.M. & Martin, S. (December 2018). *Exploring Korean high school students' perceptions about participation and engagement in school science using EPIC-S questionnaire*. Oral presentation to the 2018 NTNU-KU-SNU-HU Joint Symposium. National Dong Hwa University, Hualien, Taiwan, November 29, 2018.
- 50. Kang, D.Y., Chu, H.E., & Martin, S. (December 2018). An Analysis of the Use of Place-based Learning in Science Education Research: Implications for Korean Educational Contexts. Poster presentation to the East Asian Science Education (EASE) conference. National Dong Hwa University, Hualien, Taiwan, November 29-December 2, 2018.
- 51. Jeon, M., Allen, K., Lee, J., Martin, S. (November, 2018). Volunteering or Voluntourism? Defining Volunteering in Academia. Oral Presentation at the 19th Annual Conference on EIU/GCED held at Sungshin Women's University, Seoul, South Korea, November 10, 2018.
- 52. Jeon, M., Allen, K., Lee, J., Martin, S. (November, 2018). Is it Volunteering or Voluntourism? Identifying Volunteering in International Development. Oral Presentation for the 15th International Education Development Forum (IEDF) held at Kobe University, Kobe, Japan, November 16-17, 2018.
- 53. Jeon, M., Allen, K., Lee, J., & Martin, S. (October, 2018). Is it Volunteerism or Voluntourism? Defining Volunteering in Academia. Poster presentation to the International Conference on Education Research (ICER) conference. Seoul National University, Seoul, Republic of Korea, October 17-19, 2018.
- 54. Sprong, L., & Martin, S. (October, 2018). Science On Wheels: Bringing Quality Environmental Education to Rural India. Poster presentation to the International Conference on Education Research (ICER) conference. Seoul National University, Seoul, Republic of Korea, October 17-19, 2018.
- 55. Kang, D.Y., & Martin, S. (October, 2018). Promoting Inclusive Science Teaching for Special Education Needs (SEN) Students through Innovations in Pre-Service Science Teacher Preparation. Poster presentation to 19th annual Innovations in Teaching Conference. University of Georgia, Athens, GA, USA, October 19, 2018.

- 56. Kang, D.Y., & Martin, S. (July 2018). Understanding Structures Preventing Teachers from Supporting Culturally and Linguistically Diverse Students in Science Learning. Poster presentation to the Journal of Korean Association for Learner-Centered Instruction conference. Ewha Women's University, Seoul, Korea, July, 15, 2018.
- 57. Chu, H.E., **Martin, S.,** & Treagust, D. (June, 2018). Evaluation of an Arts-Integrated STEM Program. Oral presentation for the 49th annual Australasian Science Education Research Association (ASERA), Australia, June 26 June 30, 2018.
- 58. Gi, G., Ahn, S., & Martin, S. (June 2018). *Re-conceptualizing Scientific Literacy in the Context of Urban Farming*. Poster presentation submitted for the International Science Education Conference (ISEC), NIE, Singapore, June 19 June 21, 2018.
- 59. Cha, E.H., Lee, D.-S., & Martin, S. (June 2018). Exploring Korean School Principals' Beliefs for Teaching Diverse Students in Inclusive Classrooms. Poster presentation submitted for the International Science Education Conference (ISEC), NIE, Singapore, June 19 – June 21, 2018.
- 60. Eom, K., & Martin, S. (June 2018). Suggestions for Virtual Learning Contents based on a Case Study of Augmented Reality Content in Korea's 2015 Secondary Science Curriculum Digital Textbook. Poster presentation submitted for the International Science Education Conference (ISEC), NIE, Singapore, June 19 – June 21, 2018.
- 61. Faisal, & Martin, S. (June 2018). *Socio-Scientific Issues in Indonesia Science Teaching*. Oral presentation submitted for the International Science Education Conference (ISEC), NIE, Singapore, June 19 June 21, 2018.
- 62. Kang, D., & Martin, S. (June 2018). Examining Factors Challenging Pre-Service Science Teachers' Expectations About Inclusive Science Education. Oral presentation submitted for the International Science Education Conference (ISEC), NIE, Singapore, June 19 – June 21, 2018.
- 63. Park, J., & Martin, S. (May, 2018). Using Co-teaching and Cogenerative dialogue between Korean- and English-speaking Faculty to Improve Graduate Level Teaching in a Korean University. Oral presentation for the annual meeting of the Korean Association for Multicultural Education (KAME) in Seoul, Republic of Korea, May 19-23, 2018.
- 64. Chien, Y.-T., Jen, C.H., **Martin, S.**, Chu, H.E, and Chang, C.Y. (March, 2018). *Factors Contributing to Student Participation in Science Classroom: A Survey Study*. Oral presentation submitted for the annual meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA, Mar 10 Mar 13, 2018.
- 65. Kang, D., & Martin, S. (January 2018). Coupling Universal Learning Design for Learning and Digital Textbooks as Inclusive Pedagogical Strategies to Support: Science Learning for Diverse Learners. Oral presentation for the annual Korean Association for Science Education (KASE) conference, Dankuk University, Seoul, Republic of Korea, January 26-28, 2018.
- 66. Ahn, S., Gi, G., & Martin, S. (January 2018). 도시텃밭 활동에서 나타나는 모순이 장소기반 과학교육에 주는 함의. Oral presentation for the annual Korean Association for Science Education (KASE) conference, Dankuk University, Seoul, Republic of Korea, January 26-28, 2018.
- 67. Gi, G., Park, E.J., & Martin, S. (January 2018). *Is Informal Science Learning for All? A Review of Informal Science Learning Research with Network Analysis Focusing on Equity.* Oral presentation for the annual Korean Association for Science Education (KASE) conference, Dankuk University, Seoul, Republic of Korea, January 26-28, 2018.
- 68. Eom, K., & Martin, S. (January 2018). 과학교육에서의 게임화에 대한 문헌연구 : 동기를
촉진하는 게임요소에 집중한 과학교육의 발전방향. Oral presentation for the annual Korean

Association for Science Education (KASE) conference, Dankuk University, Seoul, Republic of Korea, January 26-28, 2018.

- 69. Kang, D., & Martin, S. (January, 2018). Experiential Learning Course for Pre-Service Science Teachers: Promoting Inclusive Science Teaching for Special Education Needs (SEN) Students. Poster presentation at the Role of Science Education in a Changing World conference held at the at the Lorentz Center at the University of Leiden, Leiden, Netherlands, January 8-12, 2018.
- 70. Gi, G., Park, E.J., & Martin, S. (December, 2017). A Review of Informal Science Learning Research with Network Analysis. Oral presentation for the HU-SNU-NTNU-KU Symposium held at Hokkaido University in Sapporo, Japan, December 18 December 20, 2017.
- 71. Eom, K., & Martin, S. (December, 2017). Examining Trends in Gamification in Education and the Potential for Application to the 2015 Korean National Science Curriculum. Oral presentation for the HU-SNU-NTNU-KU Symposium held at Hokkaido University in Sapporo, Japan, December 18 – December 20, 2017.
- 72. Faisal, & Martin, S. (December, 2017). *Reforms and Initiatives in Indonesian Curriculum: Implications for Biology Secondary Education*. Oral presentation for the HU-SNU-NTNU-KU Symposium held at Hokkaido University in Sapporo, Japan, December 18 December 20, 2017.
- 73. Kang, D., & Martin, S. (December, 2017). Exploring the Usage of Digital Textbooks in Science Education for Culturally and Linguistically Diverse Students. Oral presentation for the HU-SNU-NTNU-KU Symposium held at Hokkaido University in Sapporo, Japan, December 18 – December 20, 2017.
- 74. Ahn, S., Gi, G., Lim, S., & Martin, S. (September, 2017). Understanding Contradictions in Urban Agriculture. Oral presentation at the 27th International Conference of Chinese Society for Environmental Education (CSEE), Taichung City, Taiwan, September 16-17, 2017.
- 75. Martin, S. (August, 2017). *Embracing Diversity: Examples from Science Classrooms in Sweden, Luxembourg, and the US.* Discussant for symposium presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 76. Chu, H.E., & Martin, S. (August, 2017). Understanding Factors Contributing to Teachers' Attitudes and Self-Efficacy for Using Inquiry With Multilingual Students in Science Classrooms in Korea. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 77. Kang, D.Y., & Martin, S. (August, 2017). Examining the Impact of Experiential Learning and Autobiographical Reflection on Pre-Service Teachers' Beliefs About Inclusive Science Education. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 78. Park, J., Park, H.K., & Martin, S. (August, 2017). Using Cogenerative Dialogue to Improve Inquiry Teaching and Learning for Multilingual Students in Diverse Science Classrooms in Korea. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 79. Jen, C.H., Chien, Y.T., **Martin, S.**, Chu, H.E., & Chang, C.Y. (August, 2017). *Student Participation and Perception of Social Environment in the Science Classroom*. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 80. Choi, Y.S., Choi, J.R., Kim, C.J., Martin, S., & Choe, S.U. (August, 2017). Factors Contributing to Elementary Students' Science Interests: Implications for Practice and Policy. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.

- 81. Koo, H.K., Chu, H.E., Martin, S., & Choe, S.E. (August 2017). Exploring the Influence of Students' Science Capital on Scientific Modeling Process and Conceptual Understanding. Poster presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 82. Park, J., Chu, H.E., & Martin, S. (August, 2017). *Examining Intercultural Arts Integrated STEM Program*. Oral presentation presented to the bi-annual meeting of the European Science Education Research Association (ESERA), Dublin, Ireland, August 21-25, 2017.
- 83. **Martin, S.** (July, 2017). Using video in science education research: Methods for data collection and analysis. Two-hour workshop presented for students at the 2017 European Science Education Research Association (ESERA) Summer School at University of South Bohemia, Cseke Budejovice, Czech Republic, July 3, 2017.
- 84. Martin, S. (June, 2017). Using video in science education research: Methods for data collection and analysis. Two-hour workshop presented for students at the 2017 European Science Education Research Association (ESERA) Summer School at University of South Bohemia, Cseke Budejovice, Czech Republic, June 30, 2017.
- 85. Ahn, W., Chu, H.E., Kim, H.C., & Martin, S. (April, 2017). Examining Culturally and Linguistically Diverse Students' Learning Experiences When Co-Constructing Scientific Models in a Middle School Science Classroom in Korea: Implications for Policy and Practice. Oral presentation for the annual meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 22 – April 25, 2017.
- 86. Chien, Y.-T., Jen, C.H., Martin, S., Chu, H.E, and Chang, C.Y. (April, 2017). *Investigating what factors may affect students' attitudes toward clicker usage in science classrooms: An exploratory study.* Oral presentation for the annual meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 22 April 25, 2017.
- 87. Chien, Y.-T., Jen, C.H., **Martin, S.**, and Chang, C.Y. (Feburary, 2017). *Investigating Interaction Effects between Clicker Usage and Student Participation Preferences on Physics Learning Outcomes.* Oral presentation for the annual meeting of the Korean Association for Science Education (KASE), Seoul, Republic of Korea, February 9-11, 2017.
- 88. Jen, C.H., Chien, Y.-T., Martin, S., and Chang, C.Y. (Feburary, 2017). Who Talks Less in Science? Exploring Factors Mediating the Relationship between Students' Social Interaction Anxiety and Verbal Participation in Class.Poster presented for the annual meeting of the Korean Association for Science Education (KASE), Seoul, Republic of Korea, February 9-11, 2017.
- 89. Kang. D.Y. & Martin, S. (Feburary, 2017). Examining the Impact of Autobiographical Reflective Writing on Pre-Service Science Teachers' Beliefs about Teaching Science to Special Education Needs (SEN) Students. Oral presentation for the annual meeting of the Korean Association for Science Education (KASE), Seoul, Republic of Korea, February 9-11, 2017.
- 90. Song, G.-Y., Martin, S., & Chu, H.E. (August, 2016). Examining the effectiveness of using children's picture books in an English as Foreign Language (EFL) classroom to teach Education for Sustainable Development (ESD) concepts to elementary school students. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 91. Lee, Y., Chu, H.E., & Martin, S. (August, 2016). Using ePCK as a framework for examining factors that influence on elementary teachers' perceptions in a graduate level Interdisciplinary Environmental Education program. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 92. Park, J., Park, H.K., Cho, Y.S., Lee, J.Y., Lee, L., Park, H.S., & Martin, S. (August, 2016) Action research as a professional development model for supporting teachers to improve science

teaching and learning in diverse classrooms. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.

- 93. Kang, D.Y., & Martin, S. (May, 2016). Pre-service Science Teachers' Changing Perceptions of Science for Students with Special Education Needs Based on Engagement in Practical Science Activities. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 94. Ahn, W., Chu, H.E., & Martin, S., Chien, Y.T., Chun, H.J., & Chang, C.Y. (August, 2016). Development of an instrument to examine Engagement and Participation in Classroom – Science. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 95. Chien, Y.T., Chun, H.J., Martin, S., Chu, H.E., Ahn, W., & Chang, C.Y. (August, 2016). Toward an understanding of students' verbal and non-verbal participatory practices in the science classroom. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 96. Mun, K., Chu, H.E., Martin, S., Choe, S.E., Song, T.S., & Song, J. (August, 2016). Crosscultural, collaborative implementation of STEAM programs in Australia and Korea. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 97. Ku, H.K, Chu, H.E., Choe, S.E., & Martin, S. (August, 2016). Exploring the influence of Korean and Australian students' science capital on conceptual understanding and modeling processes. Oral presentation for the 5th bi-annual meeting of the East-Asian Association for Science Education (EASE), Tokyo, Japan, August 26-28, 2016.
- 98. Chu, H.E., Martin, S., Mun, K., Choe, S.U., Wade-Leeuwen, B., Stewart, K., Howe, C., & Song, J. (June, 2016). The Fusion of Science and Arts: An interactive digital platform to enhance STEAM (Science, Technology, Engineering, Arts and Mathematics) teaching and learning exchanges by science teachers in Korea and Australia. Presentation for the 47th annual Australasian Science Education Research Association (ASERA), Canberra, Australia, June 27 July 2, 2016.
- 99. Ku, H.K., Chu, H.E., Choe, S.U., & Martin, S. (June, 2016). Examining teachers' perceptions and students' interest for arts-integrated STEM lessons in primary school classrooms in Australia and Korea. Presentation for the 47th annual Australasian Science Education Research Association (ASERA), Canberra, Australia, June 27 – July 2, 2016.
- 100. Martin, S. (May, 2016). Science for All? Exploring the Challenges and Benefits of Multicultural Science Education in Korea. Presentation to the annual meeting of the Korean Association for Multicultural Education (KAME) in Seoul, Republic of Korea, May 16-18, 2016.
- 101. **Martin, S.** (April, 2016). Participant and Chair for session presented at the conference entitled *Transgressing the Known in Cultural Studies of Science Education* at the 2016 Cultural Studies of Science Education (CSSE) Forum, Baltimore, MD, USA, April 14-17, 2016.
- 102. Martin, S., Siry, C., & Gilbert, D. (April, 2016). Critical perspectives on cogenerative dialogue and video analysis on science teaching and learning in the elementary classroom. Oral presentation for the annual meeting of the National Association of Research in Science Teaching (NARST) in Baltimore, MD, USA, April 14-17, 2016.
- 103. Park, J., Ahn, W., & Martin, S. (April, 2016). Analyzing teaching practices in the Korean science classroom utilizing RTOP and SIOP observational tools: Implication of professional development model for the inclusion of culturally and linguistically diverse students in science. Oral presentation for the annual meeting of the National Association of Research in Science Teaching (NARST) in Baltimore, MD, USA, April 14-17, 2016.

- 104. Park, M.Y., Ahn, W., Martin, S., Kwon, O.N., & Chu, H.E. (Nov, 2015). A Study on Verification Methods for Establishing Reliability of Math and Science Classroom: Focusing on Use of Constructivist Teaching Observation Protocol. Poster presented to the Korean Society of Mathematical Education (KSME) meeting, Seoul, Korea, November 6-8, 2015.
- 105. **Martin, S.,** Chu, H.E., Ahn, W., & Park, J. (October, 2015). *Exploring how students' and teachers' perceptions of participation and engagement in science classrooms impact science teaching and learning*. Oral presentation for the 4th bi-annual meeting of the East-Asian Association for Science Education (EASE), Beijing, China, October 16-18, 2015.
- 106. **Martin, S., &** Chu, H.E. (October, 2015). *Asia-Pacific Science Education (APSE): Introducing a new avenue for publishing science education research.* Workshop presented for the 4th bi-annual meeting of the East-Asian Association for Science Education (EASE), Beijing, China, October 16-18, 2015.
- 107. Ahn, W., Martin, S., Chu, H.-E., & Park, J. (September, 2015). Exploring students' perceptions of participation and engagement in science in two Korean middle school classrooms. Poster presented to the annual meeting of the Korean Earth Science Society, Jeonju, Korea, September 10-11, 2015.
- 108. **Martin, S.,** Chu, H.E., Park, J., & Cha, E.H. (September 2015). *Challenges for Inquiry and Language Based Teaching to Culturally and Linguistically Diverse Students in Korea.* Symposium presented to the European Science Education Research Association (ESERA) for international conference in Helsinki, Finland, August 31-September 5, 2015.
- 109. Martin, S., Chu, H.E. (July, 2015). Korean teacher's attitudes and self-efficacy for using inquiry-teaching practices with culturally and linguistically diverse students: Implications for science teacher. Oral presentation to the International Conference for Science Educator and Teachers, Bangkok, Thailand, July 17-19, 2015.
- 110. Park, J., Ahn, W., & Martin, S. (July, 2015). *Analyzing teaching practices using RTOP and SIOP observational tools: Implications for the inclusion of culturally and linguistically diverse students in Korean science classrooms.* Poster presentation to the International Conference for Science Educator and Teachers, Bangkok, Thailand, July 17-19, 2015.
- 111. Ruggirello, R., & Martin, S. (April, 2015). *The role of the school principal in K-12 science education reform.* Paper presentation to the annual international meeting of NARST, Chicago, IL, USA, April 11-14, 2015.
- 112. **Martin, S.,** Park, J., & Chu, H.-E. (April, 2015). *Examining how teacher's attitudes about inquiry and language learners can shape students' opportunities to learn science*. Oral presentation as part of the symposium presentation entitled International Perspectives on Multilingual Contexts in Science Education Research and Practice at the annual international meeting of NARST, Chicago, IL, USA, April 11-14, 2015.
- 113. Kim, E.J., & Martin, S. (January, 2015). Understanding Student and Teacher Interactions in Korean High School Science Classrooms from a Structure and Agency Dialectic Perspective. Poster presentation at the international conference on the Understanding of Science and Mathematics Classroom Cultures in East Asia. Seoul, Korea, January 8-9, 2015.
- 114. **Martin, S.** (January, 2015). *Can silence be a legitimate form of student participation in science classrooms? Implications for research and practice.* Presentation at the international conference on the Understanding of Science and Mathematics Classroom Cultures in East Asia. Seoul, Korea, January 8-9, 2015.
- 115. Martin, S., Kim, E.J., & Park, J. (December 2014). Examining interactions from a sociocultural perspective to make sense of student silence in science classrooms in Korea. Symposium presentation at the annual NTNU-HU-SNU Joint Symposium on Science

Education – Next Generation Science Learning and Teaching. Yilan, Taiwan, December 3-4, 2014.

- 116. Park, J., & Martin, S. (December 2014). Examining how structures afford and limit student participation in Korean science classrooms: Implications for culturally relevant pedagogy in science education. Poster presentation at the annual NTNU-HU-SNU Joint Symposium on Science Education Next Generation Science Learning and Teaching. Yilan, Taiwan, December 3-4, 2014.
- 117. Cha, E.H., & Chu, H.E., Martin, S. (December 2014). Examining Korean teacher's attitudes and self-efficacy teaching inquiry and language to non-Korean students. Poster presentation at the annual NTNU-HU-SNU Joint Symposium on Science Education – Next Generation Science Learning and Teaching. Yilan, Taiwan, December 3-4, 2014.
- 118. Park, J., & Martin, S. (2014). *Examining how teacher's attitudes about inquiry and language learners can shape students' opportunities to learn science*. Poster presentation to 2014 KESS International Conference, Seoul National University, Korea, September 18-19, 2014.
- 119. **Martin, S.**, Park, J., & Kim, E.J. (2014). *A dialectical relationship between interactions in science class and Korean science classroom culture.* Symposium presentation to 2014 KASE International Conference, Chuncheon University, Korea, July 27-28, 2014.
- 120. Martin, S. (2014). Understanding student silence in science classrooms in Korea: Implications for pedagogy and research. Paper presented to 2014 Cultural Studies of Science Education (CSSE) International Exploratory Workshop at University of Luxembourg, Luxembourg, June 17-19, 2014.
- 121. **Martin, S., &** Park, J. (2014). *Examining coteaching relationships between Science and ESOL teachers: Improving science and language instruction via observation and dialogue*. Paper presentation to the annual American Educational Research Association (AERA) meeting, Philadelphia, PA, April 3-7, 2014.
- 122. **Martin, S.,** Kim, E.J., & Park, J. (2014). *Theorizing the need for research on the effectiveness of culturally relevant teaching pedagogies in Korean science classrooms.* Paper presentation at the Korean Association for Science Education (KASE) international conference, Daegu, Korea, February 13-15, 2014.
- 123. **Martin, S.,** Park, J., Cha, E.H., & Chu, H.E. (2014). *Examining how Korean teachers' beliefs about inquiry and second language acquisition can shape students' learning opportunities in science*. Paper presentation at the Korean Association for Science Education (KASE) international conference, Daegu, Korea, February 13-15, 2014.
- 124. **Martin, S.,** Park, J., Cha, E.H. (Dec, 2013). *Exploring Korean teachers beliefs about the need to implement alternative science teaching practices in classrooms with "diverse" students*. Paper presentation at the annual SNU-HU Symposium, Seoul, Korea, December 17-18, 2013.
- 125. Shim, S.-Y., Lee, Y., Kim, S., Lee, K., & Martin, S. (Dec, 2013). *Integrating autobiographical writing and sociocultural theory to promote reflection on science teaching and learning in teacher education*. Poster presentation at the annual SNU-HU Symposium, Seoul, Korea, December 17-18, 2013.
- 126. Scantlebury, K., **Martin, S., &** Wassell, B. (2013). *Enhancing girls' (re)voice: Cogenerative dialogues as feminist pedagogy /research for Latin@ and Asian girls' science learning.* Paper presentation at the bi-annual meeting of the European Science Education Research Association (ESERA), Nicosia, Cyprus, September 2-7, 2013.
- 127. **Martin, S.**, Kim, E.J., Kim, J.W., & Park, J. (July, 2013). *Examining the impact of teacher practices on science learning in multicultural classrooms in Korea*. Paper presented at the Korean Association of Science Education (KASE), Gwangju, Republic of Korea, July 26-27, 2013.

- 128. Park, C.M., Martin, S., Kim, C.J., & Choi, S.E. (July, 2013). Using cogenerative dialogue to improve science teaching and learning in a beginning teacher's elementary science classroom. Paper presented at the Korean Association of Science Education (KASE), Gwangju, Korea, July 26-27, 2013.
- 129. Martin, S. (2013). Publishing in Science Education: Useful Information for Graduate Students and Early Career Scholars. Workshop presented at the Global Chinese Conference on Science Education (GCCSE), South China Normal University, Guangdong, China, July 7-9, 2013.
- 130. Martin, S., & Liu, L. (July, 2013). *Publishing in Science Education: Useful Information for Graduate Students and Early Career Scholars*. Workshop presented at the bi-annual meeting of the East-Asian Association for Science Education (EASE), Hong Kong, HK, July 3-6, 2013.
- 131. Martin, S. (April, 2013). Employing participatory research methods in multilingual research studies. Presented as part of a symposium *Expanding perspectives and participation in research on teaching and learning in science with innovative methodological approaches* with Ritchie, S., Hudson, P., Bellocchi, A., Henderson, S., King, D., Siry, C., & Tobin, K to the annual international meeting of the National Association for Research in Science Teaching (NARST), Rio Grande, Puerto Rico, April 6-9, 2013.
- 132. **Martin, S.**, & Park, J. (April, 2013). *Supporting reflection on co-teaching practices that can improve science teaching in linguistically diverse classrooms.* Poster presented to the annual international meeting of the National Association for Research in Science Teaching (NARST), Rio Grande, Puerto Rico, April 6-9, 2013.
- 133. Scantlebury, K., Wassell, B., & Martin, S. (April, 2013). *Gendered expectations for ELL students' science achievement and participation*. Paper presented to the annual international meeting of the National Science Teacher Association (NSTA), San Antonio, TX, April 11-14, 2013.
- 134. **Martin, S.,** & Park, J. (January, 2013). *Professionalizing coteaching relationships between science and ESOL teachers through cogenerative dialogues.* Paper presented to the annual meeting of the Korean Association for Science Education (KASE), Ewha University, Seoul, Republic of Korea, February 21-23, 2013.
- 135. **Martin, S.**, Park, J.C., Hong, H., & Gullo, D. (January, 2013). *Enhancing science teacher practices in classrooms with linguistic minorities using focused observations and cogenerative dialogues*. Interactive poster presented to the annual international meeting of the Association for Science Teacher Education (ASTE) at Charleston, SC, USA, January 9-12, 2013.
- 136. Park, J., & Martin, S. (May 2012). *Exploring connections between inquiry science teaching and language development for English Language Learner (ELL) students using observation analysis and cogenerative dialogue*. Poster presented to the International Conference on Science Education at Nanjing University, China, October 12-15, 2012.
- 137. Martin, S. (May, 2012). Examining the impact of globalization at the macro, meso, and micro levels: Employing Intersectionality and cultural sociology to understand the impact of immigration on K-12 science teaching and learning in the USA. Paper presented to the International Conference on Science Education at Nanjing University, China, October 12-15, 2012.
- 138. Wassell, B., Gullo, D., Scantlebury, K., Martin, S. (2012). Gendered expectations for English Language Learners' experiences and participation in science. Poster presented to the Joint Annual Meeting (JAM) of the National Science Foundation (NSF), June 12-15, 2012, Washington, DC.
- 139. Martin, S., & Park, J. (May, 2012). Enhancing Science Teaching for English Language Learner (ELL) students using Observation and Dialogue. Poster presented at the 21st Symposium on Chemistry and Science Education conference addressing Issues of Heterogeneity and Cultural

Diversity in Science Education and Science Education Research at TU Dortmund University, Germany, May 17-19, 2012.

- 140. Martin, S., & Siry, C. (April, 2012). Engaging Teachers and Students in Participatory Dialogues to Co-Generate Positive Learning Environments in Elementary Science Classrooms. Paper presented at the annual meeting of the American Education Research Association, (AERA) Vancouver, BC, April 13-17, 2012.
- 141. Siry, C., & Martin, S. (April, 2012). *Participatory approaches to science teacher education courses: Fostering professionalism through sharing responsibility*. Paper presented at the annual meeting of the American Education Research Association, (AERA) Vancouver, BC, April 13-17, 2012.
- 142. Wassell, B., Scantlebury, K., & Martin, S. (April, 2012). *Identifying teachers' beliefs and practices in teaching science to middle school ELL students*. Paper presented for American Educational Research Association Annual Meeting, (AERA) Vancouver, BC, April 13-17, 2012
- 143. Scantlebury, K., Wassell, B., **Martin, S**. (March, 2012). *A "B" isn't good enough: Gendered expectations for ELL students' science achievement and participation*. Poster presented at the annual meeting of the National Association for Research in Science Teaching, (NARST) Indianapolis, IN, March 25-March 28, 2012.
- 144. Wassell, B., **Martin, S.,** Scantlebury, K., Abdul-Malik, C., & Hong, H. (March, 2012). *Using Observation and Dialogue to Enhance Science Learning for ELLs*. Paper presented at the annual meeting of the Teachers of English to Speakers of Other Languages (TESOL), Philadelphia, PA, March 28-31, 2012.
- 145. Wassell, B., **Martin, S.,** Scantlebury, K., Megill Legendre, L., & Lowery, X. (March, 2012). *Revolutionize Your Classroom and Empower Students with Cogenerative Dialogue.* Workshop presented at the annual meeting of the Teachers of English to Speakers of Other Languages (TESOL), Philadelphia, PA, March 28-31, 2012.
- 146. **Martin, S.** (November, 2011). *E-Portfolios as evidence of teacher growth: Examining a growing trend in science teacher education*. Symposium presentation at the annual NTNU-HU-SNU Joint Symposium on Science Education Broadening Horizons through Asian Dialogues. Taipei, Taiwan, November 17-18, 2011.
- 147. **Martin, S.** (October, 2011). Using Video Analysis and Cogenerative Dialogues to Expand Science Teaching and Learning Opportunities for Teachers and Students in Urban Schools. Paper presented at the bi-annual meeting of the East-Asian Association for Science Education (EASE), Gwangju, Republic of Korea, October 25-29, 2011.
- 148. Im, S., & Martin, S. (October, 2011). Using Cogenerative Dialogues to Explore the Experiences of Korean English Language Learners in the Science Classroom in the US. Paper presented at the bi-annual meeting of the East-Asian Association for Science Education (EASE), Gwangju, Republic of Korea, October 25-29, 2011.
- 149. Scantlebury, K., Martin, S., & Wassell, B. (September, 2011). *Globalization and Science Education: Issues impacting English Language Learners in US Urban Schools*. Paper presentation at the bi-annual meeting of the European Science Education Research Association (ESERA), Lyon, France, September 1-5, 2011.
- 150. **Martin, S.,** Wassell, B. & Scantlebury, K. (2011). *Examining the intersections of race, ethnicity, class and gender: An analysis of research on English language learners in K-12 science education.* Poster presented at Joint Annual Meeting (JAM), Washington DC, June 6-8, 2011.
- 151. Martin, S., & Siry, C. (April, 2011). Applying theory to Practice: Video analysis and cogenerative dialogues as reflexive tools for pre-service teachers. Paper presented at the American Educational Research Association Annual Meeting, New Orleans, LA, April 8-12, 2011.

- 152. Bianchini, J., et al, & **Martin, S.** (April, 2011). "Moving the equity agenda forward: Equity, research, practice and policy in science education. Poster presented as part of a collective of authors for a new book on equity issues in science education presented to the international meeting of the National Association for Research in Science Teaching (NARST), Orlando, FL, April 3-6, 2011.
- 153. Tobin, K., Kim, C., Espinet, M., Martin, S., Siry, C., Alexakos, K., & Elmesky, R. (April, 2011). *Theoretical and empirical analyses of social capital and networking in science education: From global to local.* Symposium presented at the international meeting of the National Association for Research in Science Teaching (NARST), Orlando, FL, April 3-6, 2011.
- 154. **Martin, S.**, Milne, C., Siry, C., Ruggirello, R., Butler-Kahle, J., Scantlebury, K., & Li, Y. (April, 2011). *Employing Sociocultural Frameworks In Program Evaluation Design: Exploring The Challenges And Benefits For Internal And External Evaluation*. Paper set presented at the international meeting of the National Association for Research in Science Teaching (NARST), Orlando, FL, April 3-6, 2011.
- 155. **Martin, S.**, Siry, C., Ruggirello, R., Blasie, C., Horowitz, J., & Wilson, Y. (March, 2010). "It's electric!"- *E-Portfolios as evidence of teacher growth: Examining a growing trend in both research and practice in science teacher education*. Pre-conference 4-hour workshop presented to the international meeting of the National Association for Research in Science Teaching, Philadelphia (NARST), PA, March 18-21, 2010.
- 156. Ruggirello, R., & **Martin, S.** (March, 2010). Under the fog of science education reform: A spotlight on administrators. Paper presented at the international meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA, March 20-24, 2010.
- 157. Wilson, Y., **Martin, S.**, Ruggirello, R. (March, 2010). *Early leavers and vertical advancers: Sociocultural factors influencing teacher attrition from a graduate program for middle and high school science teachers*. Paper presented at the international meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA, March 20-24, 2010.
- 158. **Martin, S.,** Dixon, M., King, T., Thornton, M., & Ward, K. (March, 2010). *Co-generating positive K-12 science learning environments through Dialogue: Engaging teachers and students in classroom research that improves science teaching and learning*. Special 1.5-hour workshop presented at the annual meeting of the National Association for Science Teachers (NSTA), Philadelphia, PA, March 18-21, 2010.
- 159. Cooke, D., Hillemann, J., Meckley, L., & Martin, S. (March, 2010). *Inquiry Does Work:* Using backward design and alternative assessments in Biology. Special 1-hour workshop presented at the annual meeting of the National Association for Science Teachers (NSTA), Philadelphia, PA, March 18-21, 2010.
- 160. **Martin, S., &** Ruggirello, R. (January, 2010). *A Missing Structure in Promoting Reform Science Teaching: The Role of Administrators in Science Education*. Paper presented at the international meeting of the Association of Science Teacher Educators (ASTE), Sacramento, CA, January 11-14, 2010.
- 161. Martin, S. (September, 2009). Individual paper "When trying your best is just not good enough": Examining the role of video analysis and cogenerative dialogue in keeping teachers in urban classrooms presented as part of a special symposium of international scholars entitled Social Difference as a Resource for Producing Success in Science in Culturally Diverse Fields, including K. Tobin and K. Scantlebury at the bi-annual international European Science Education Research Association (ESERA) meeting, Istanbul, Turkey, August 31 – September 4, 2009.
- 162. **Martin, S.**, & Siry, C. (September, 2009). *Cogenerative dialogues and video analysis: transforming science teaching and learning in the elementary classroom.* Paper presented for oral

presentation to the bi-annual International European Science Education Research Association (ESERA) meeting, Istanbul, Turkey, August 31 – September 4, 2009.

- 163. Siry, C., & Martin, S. (September, 2009). Coteaching in science teacher education: facilitating collective responsibility for teaching and learning. Paper presented for oral presentation to the bi-annual International European Science Education Research Association (ESERA) meeting, Istanbul, Turkey, August 31 – September 4, 2009.
- 164. **Martin, S.,** & Siry, C. (April, 2009). *Windows and mirrors: Using digital video analysis to build community and support pre-service teacher autonomy and reflexivity.* Symposium presentation to the American Educational Research Association (AERA) Annual Meeting, San Diego, CA, April 13-17, 2009.
- 165. Martin, S., & Siry, C. (April, 2009). More table, less carpet: The transformative role of cogenerative dialogue and video analysis on science teaching and learning in the elementary classroom. Paper presented for the National Association for Research in Science Teaching (NARST) Annual Conference, Garden Grove, California, April 17-21, 2009.
- 166. Siry, C., & Martin, S. (April, 2009). Coteaching as engaged pedagogy: Transforming science teacher education through shared responsibility. Paper presented for the National Association for Research in Science Teaching (NARST) Annual Conference, Garden Grove, California, April 17-21, 2009.
- 167. **Martin, S.**, & Ruggirello, R. (Feb., 2009). Fostering co-responsibility for teaching and learning through coteaching and cogenerative dialogue. Presentation as part of a symposium presentation entitled Promoting coteaching and co-responsibility as reflexive practices at the PennSTI professional development program for in-service science teachers for the 30th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 27-28, 2009.
- 168. **Martin, S.** (January, 2009). *Rising above a gathering storm of data: Triangulating findings through formative and summative evaluation methodologies.* Paper presented to the National Science Foundation Math & Science Partnership Learning Network Conference, Washington, DC January 25-27, 2009.
- 169. **Martin, S.,** & Siry, C. (Jan., 2009). "It's not what you use, it is how you use it! "An analysis of the utilization of video-based media in science teacher education. Paper presented at the international meeting of the Association of Science Teacher Educators (ASTE), Hartford, Connecticut, January 8-10, 2009.
- 170. Martin, S., Blasie, C., & Ruggirello, R. (Nov., 2008). The Administrator's Science Education Academy: A program structure for supporting change in classroom practice. Symposium presentation as part of a workshop entitled The Penn Science Teacher Institute: Works in Progress for the 3rd Annual Conference for Research in Math and Science Education, West Chester University, PA, November 15, 2008.
- 171. Siry, C., & **Martin, S.** (April, 2008). *A collaborative approach to teacher education: Coteaching, cogenerative dialogues, and video based reflection.* Special symposium presented on coteaching presented for the annual meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD, March 30 – April 2, 2008.
- 172. **Martin, S., &** Blasie, C. (August, 2008). *Changing the chemistry of school reform: Catalyzing administrative leadership for structuring reform in science classrooms.* Paper presented for the annual meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD, March 30 April 2, 2008.
- 173. **Martin**, S., & Siry, C. (March, 2008). *Choosing the right tool for the job: An analysis of the utilization of video/multi-media resources in teacher education*. Paper presented for the annual

meeting of the American Educational Research Association (AERA), New York, NY, March 24-28, 2008.

- 174. **Martin, S.**, & Siry, C. (January, 2008). *Coteaching as Praxis: A method for improving science teacher education courses*. Embedded workshop presented for the international meeting of the Association of Science Teacher Education (ASTE), St. Louis, MO, January 10-12, 2008.
- 175. **Martin, S.**, & Blasie, C. (April, 2007). *Inquiry in Research and Action: Voices of teacherresearchers*. Paper presented for the annual meeting of the National Science Teacher Association (NSTA), Boston, MA, March 27-30, 2008.
- 176. Horowitz, J., Blasie, C., & **Martin, S.** (April, 2007). *MISEP A view of a Middle grades Integrated Science Teacher Education Program.* Paper presented for the annual meeting of the National Science Teacher Association (NSTA), Boston, MA, March 27-30, 2008.
- 177. **Martin, S.**, & Blasie, C. (April, 2007). *Administrators and teacher in action: Meeting the challenges of reforming science education in diverse school settings*. Paper presented for the annual meeting of the National Science Teacher Association (NSTA), Boston, MA, March 27-30, 2008.
- 178. **Martin, S.,** Jacobs, C., & Otieno, T. (April, 2007). Evaluating changes in teacher practice *using a Lesson Plan Analysis Instrument*. Paper presented for the annual meeting of the National Association in Research of Science Teaching (NARST), New Orleans, LA, April 14-17, 2007.
- 179. **Martin, S.**, Lehner, E., Kirch, S., & Emdin, C. (April, 2007). *Rethinking professional development partnerships: Coteaching as a means for investigating, changing and renewing praxis.* Symposium presented for the annual meeting of the National Association in Research of Science Teaching (NARST), New Orleans, LA, April 14-17, 2007.
- 180. **Martin, S.**, Spink, C., Zanoni, M., Lee, L., & Ciccone, J. (February, 2007). *The role of administrative leadership in structuring educational reform in science classrooms: Perspectives from the field*. Symposium panel member to the 28th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 23-24, 2007.
- 181. **Martin, S.** (February, 2007). Cogenerating class with in-service teachers in a graduate chemistry education course to understand how we learn to teach chemistry. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education (AACTE), New York, NY, February 24-27, 2007.
- 182. **Martin, S.**, Tobin, K., Bayne, G., Emdin, C., & Scantlebury, K. (January, 2007). Second generation Cogens: Employing cogenerative dialogues to improve the quality of science teacher education. Paper presented to the international annual meeting of the Association for Science Teacher Education (ASTE), Clearwater Springs, FL, January 3-6, 2007.
- 183. Scantlebury, K., Elmesky, R., Milne, C., Tobin, K., Murphy, C., LaVan, S-K., & Martin, S. (April, 2006). *Using coteaching and cogenerative dialogues to improve science teaching and enhance student learning through a sociocultural lens*. Discussant for related paper set presented to the annual meeting of the National Association in Research of Science Teaching (NARST), San Francisco, CA, April 3-6, 2006.
- 184. Martin, S., & Otieno, T. (March, 2006). Changing the chemistry of school reform: Facilitating administrative support for educational reform in science classrooms. Presentation at the 231st American Chemical Society (ACS) National Meeting in the Chemical Education Division, Atlanta, GA, March 26-30, 2006.
- 185. Blasie, C., Otieno, T., & Martin, S. (March, 2006). A model for improving science education in upper elementary grades: Penn's Master of Integrated Science Education Program. Presentation at the 231st American Chemical Society (ACS) National Meeting in the Chemical Education Division, Atlanta, GA, March 26-30, 2006.

- 186. Scantlebury, K., & Martin, S. (March, 2006). Implementing cogenerative dialogues in teaching chemistry teachers. Presentation at the 231st American Chemical Society (ACS) National Meeting in the Chemical Education Division, Atlanta, GA, March 26-30, 2006.
- 187. Scantlebury, K., Tobin, K., Kirch, S., Gleason, S., Amoroso, M., & Martin, S. (February, 2006). *Ethnographies of the viability of coteaching in teacher education and research on teaching*. Discussant for related paper set at the 27th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 24-25, 2006.
- 188. Martin, S., Otieno, T., & Blasie, C. (February, 2006). Helping teachers help students: The role of administrative leadership in structuring educational reform in science classrooms. Preliminary findings presented from on-going study at the 27th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 24-25, 2006.
- 189. Milne, C., LaVan, SK., Elmesky, R., **Martin, S.**, Scantlebury, K., Gilmer, P., & Tobin. K. (January, 2006). *Coteaching and cogenerative dialogues: Dynamic pathways for innovative research and teaching strategies in science teacher education*. Pre-conference workshop presented to the international annual meeting of the Association for Science Teacher Education (ASTE), Portland, OR, January 12-14, 2006.
- 190. **Martin, S.** (October, 2005). Using video analysis to merge theory and practice in pre-service science methods courses. Presentation at the annual meeting of the Northeast Region of the Association for Science Teacher Education, Amherst, MA, October 27-28, 2005.
- 191. **Martin, S.** & LaVan, S. (April, 2005). *Merging theory and practice through the use of video analysis in pre-service science methods courses and ongoing professional development.* Paper presented to the annual meeting of the National Association in Research of Science Teaching (NARST), Dallas, TX, April 4-7, 2005.
- 192. LaVan, S. & **Martin, S.** (April, 2005). *Keeping teachers in the urban classroom: Cogenerative dialogue as a means to support beginning teachers.* Paper presented to the annual meeting of the National Association in Research of Science Teaching (NARST), Dallas, TX, April 4-7, 2005.
- 193. Martin, S., Roberts, B., & Emig, B. (January, 2005). *Co-generating solutions with Cogenerative Dialogues in a Master's of Chemistry Education program for high school science teachers*. Symposium panel presentation at the annual meeting of the Association for the Education of Teachers in Science (ASTE), Colorado Springs, CO, January 19-23, 2005.
- 194. Malow-Iroff, M., Benhar, M., & Martin, S. (October, 2004). *Educational reform and the child with disabilities*. Workshop presentation at the Authentic Education Reform: Parents and Teachers Speak Out conference, Queens College, Flushing, NY, October 23, 2004.
- 195. **Martin, S.** (July, 2004). "You ain't feelin' me!" Student identity and achievement in urban science classrooms. Paper presented at the annual international meeting of the Australian Science Education and Research Association (ASERA), Armidale, New South Wales Australia, July 7-11, 2004.
- 196. **Martin, S.** (April, 2004). "We're not acting like adults!" Cogenerative dialogues: Altering the chemistry of the classroom. Paper presented at the annual meeting of the National Association in Research of Science Teaching (NARST), Vancouver, BC, April 1-4 2004.
- 197. **Martin, S.**, Milne, C., & Scantlebury, K. (April, 2004). *Eyerollers, handraisers, and turn sharks: The emergence of clique sand target students in a college chemistry classroom.* Roundtable discussion at the annual meeting of the American Educational Research Association (AERA), San Diego, CA, April 12-16, 2004.
- 198. **Martin, S.**, Winterstein, J., Kuncio, D., Slaughter, C., Tang, H., & Travis, J. (February, 2004). "You ain't feelin' me!" Student identity and achievement in urban science classrooms. Interactive

workshop with student researchers presented to the 25th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 27-28 2004.

- 199. **Martin, S.**, LaVan, S.K., Elmesky, R., & Tobin, K., (January, 2004). "Do you see what I see?" *Merging theory and practice through the use of video analysis for pre-service science teachers.* Pre-conference workshop presented for the annual meeting of the Association for the Education of Teachers in Science (ASTE), Nashville, TN, January 8-11, 2004.
- 200. Tobin, K., Roth, W. M., Scantlebury, K., LaVan, S. K., Martin, S., & Milne, C. Wassell, B. (2004, January). *Learning to teach science using coteaching and cogenerative dialogue*. Interactive symposium presented for the annual meeting of the Association for the Education of Teachers in Science (ASTE), Nashville, TN, January 8-11, 2004.
- 201. **Martin, S.**, & Otieno, T. (2003). Using an inquiry model in the teaching and learning of science: Can it be done in the secondary classroom? Paper presented at the annual Mid-Atlantic Regional Meeting of the American Chemical Society (ACS), Princeton, NJ, June 8, 2003.
- 202. Blasie, C., Phillips, S., **Martin, S.** & Otieno, T. (2003). *Inquiry teaching and learning at a research university: An oxymoron or a catalyst?* Workshop conducted at the Mid-Atlantic Discovery Chemistry Project at Franklin and Marshall College, Lancaster, PA, June 1-3, 2003.
- 203. LaVan, S.K. & Martin, S. (2003). *Learning high school chemistry through inquiry*. Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL, April 21-25, 2003.
- 204. LaVan, S.K. & Martin, S. (2003). *This is not your parents' chemistry course: Using group work to improve science learning and scientific literacy.* Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL, April 21-25, 2003.
- 205. Scantlebury, K., Tobin, K., Otieno, T., & **Martin, S.** (2003). *Catalysts or inhibitors to the teaching and learning of chemistry in a master of chemical education program.* Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, IL, April 21-25, 2003.
- 206. LaVan, S.K. & Martin, S. (2003). We don't know what we're talkin' about: Peer group interactions and the formation of a learning community. Paper presented at the 24th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 28, 2003.
- 207. **Martin, S.**, Milne, C., Scantlebury, K., Otieno, T., & Tobin, K. (2003). "*Pick Me! Pick Me!*" *The emergence of target students in a Master's of Chemistry Education program.* Paper presented at the 24th Annual Ethnography in Education Forum, University of Pennsylvania, Philadelphia, PA, February 28, 2003.
- 208. Milne, C., Scantlebury, K., **Martin, S.**, Otieno, T., & Tobin, K., (2003). *Developing and implementing chemistry education courses for practicing teachers*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science (AETS), St. Louis, MO, January 30-February 2, 2003.
- 209. LaVan, S.K. & Martin, S. (2003). *Teachers and inquiry: Learning high school chemistry through inquiry*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science (AETS), St. Louis, MO, January 29- February 2, 2003.
- 210. **Martin, S.** (2003). *Limited resources, not possibilities*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Philadelphia, PA, March 22-26, 2003.
- 211. **Martin, S.**, Otieno, T., Abraham, A., Carambo, C., & Hazelwood, L. (2003). *Teaching in the urban science classroom: Does being a teacher-research make a difference?* Paper presented at the National Science Teachers Association (NSTA) national meeting, Philadelphia, PA, March 27-30, 2003.

- 212. LaVan, S.K. & Martin, S. (2002). Social structure of high schools and enacted school curricula. Paper presented at the 23rd Annual Ethnography in Education Forum, University of
- 213. **Martin, S.**, Loman, L., Abraham, A., Carambo, C., & Elmesky, R. (2002). *The cultural implications for science education in urban schools*. Paper presented at the 23rd Annual Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA, March 1-2, 2002.
- 214. **Martin, S.** (2002). *Transformative science: Teacher as researcher, promoting catalytic changes in the classroom.* Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA, April 6-10, 2002.
- 215. **Martin, S.**, Loman, L., Abraham, A., Carambo, C., & Elmesky, R. (2002). *Science education as a socially transformative force*. Symposium presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans (NARST), LA, April 6-10, 2002.
- 216. Olitsky, S., Loman, L., **Martin, S.**, & Milne, C. (2002). *Thin coherence & weak boundaries: Enacting school science culture in an urban magnet school*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST), New Orleans, LA, April 6-10, 2002.
- 217. **Martin, S.** (1998). *A community ethnography: Making the strange familiar*. Paper presented at the 19th Annual Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA, March 6-7, 1998.

INVITED PRESENTATIONS

KEYNOTE AND PANELIST PRESENTATIONS

- 1. **Martin, S.** (June, 2018). Confronting Prevailing Narratives of Student Engagement and Participation in Science Classrooms from Different Lenses. Invited Keynote presentation for the International Science Education Conference (ISEC), NIE, Singapore, June 19 June 21, 2018.
- Martin, S. (March, 2018). Panelist speaker at the Ethics & Equity Committee sponsored symposium entitled, *Re-centering science education for all*. Presented at the annual meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA, Mar 10 Mar 13, 2018. Martin, S. (April, 2017). *Addressing the Challenges of Science Teaching and Learning in a Glocal Context: Informing Practices in Equity and Ethics*. Invited panelist speaker at the Ethics & Equity Committee sponsored symposium at the annual meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 22 April 25, 2017.
- 3. **Martin, S.** (April, 2017). *Global and local social, cultural, language, and political aspects for science education.* Invited panelist speaker at the Presidential-sponsored session at the annual meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 22 April 25, 2017
- 4. **Martin**, S. (April, 2017). *13 Questions: Reframing Education's Conversation: Science*. Invited panelist speaker at the International Committee sponsored symposium at the annual meeting of the National Association for Research in Science Teaching (NARST), San Antonio, TX, April 22 April 25, 2017
- 5. **Martin, S.** (April 2016). *Diversity and Equity in Science Education: Voices from Across the Globe*. Invited panelists for symposium for the Equity and Ethics committee for the annual meeting of the National Association of Research in Science Teaching (NARST) in Baltimore, MD, USA, April 14-17, 2016.

- 6. **Martin, S.** (April, 2013). Membership and Elections Graduate Student Forum Planning Committee to serve as a Panelist at the *Graduate Student Forum* at the National Association for Research in Science Teaching (NARST) annual meeting, Rio Grande, Puerto Rico, April 7, 2013.
- Martin, S. (May, 2012). Examining linguistic and cultural diversity in local and global contexts. Keynote presentation at the 21st Symposium on Chemistry and Science Education conference addressing Issues of Heterogeneity and Cultural Diversity in Science Education and Science Education Research at TU Dortmund University, Germany, May 17-19, 2012.
- 8. **Martin, S.** (October, 2008). *Making a difference in K-12 science education*. Invited by Dr. Jennifer Stanford as panelist for the Careers for Bioscience Undergraduates Seminar, Department of Bioscience and Biotechnology, Drexel University, Philadelphia, PA.

SYMPOSIUMS, INVITED PRESENTATIONS, DISCUSSANT/CHAIR

- 9. **Martin, S.** (September, 2021). *How to Cope with the Pandemic Learning Loss and Learning Recovery.* Invited by Professor Sulistyo Saputro at the Universitas Sebelas Maret, Faculty of Teacher Training and Education for the Top Scholar Virtual Lecture series, Indonesia, September 23, 2021
- 10. Martin, S. (March, 2021). *The need for (Gender) Inclusive STEM Education. Presented to the symposium for* Actualization of Integrated STEAM degree programs: A model to Inform, Catalyze, and Share Inter- and Trans-Disciplinary University Education. Sponsored by Asia-Pacific Economic Cooperation, Virtual Seminar, Singapore, March 23-25, 2021.
- 11. **Martin, S**. (November, 2018). *Potentials and Perils of Artificial Intelligence (AI): Implications for Inequity in Science Education*. Invited oral presentation for the 2018 NTNU-KU-SNU-HU Joint Symposium. National Dong Hwa University, Hualien, Taiwan, November 29, 2018.
- 12. **Martin, S.** (March, 2018). NARST *Early Career Forum*. Co-organizer for symposium for the Membership committee for the annual meeting of the National Association of Research in Science Teaching (NARST) in Atlanta, GA, Mar 10 Mar 13, 2018.
- 13. Martin, S. (February 2018). Using Cogenerative Dialogue and Video Analysis in the Elementary Science Classroom to Expand Student Voice and Improve Teaching and Learning. Invited to the SNU-NIE Joint Symposium to give a presentation for guests at Seoul National University, Korea on February 5, 2018.
- 14. **Martin, S.** (January 2018). *Implications for Research and Education to Challenge Ageism By Reducing Implicit Bias.* Discussant remarks for the GCER-SSK international meeting at Seoul National University, Korea on January 29, 2018.
- 15. Martin, S. (January, 2018). *Equity issues in science education in Korea: Implications for teacher education.* Invited by Dr. Lucy Avraamidou to give a presentation for colleagues at the *Role of Science Education in a Changing World* conference held at the at the Lorentz Center at the University of Leiden, Leiden, Netherlands, January 8-12, 2018.
- 16. **Martin, S.** (May, 2017). Chair for oral session presented at annual meeting of Korean Association for Multicultural Education (KAME) in Seoul, Republic of Korea, May 19, 2017.
- 17. **Martin, S.** (April 2016). NARST *Early Career Forum*. Co-organizer for symposium for the Membership and Elections committee for the annual meeting of the National Association of Research in Science Teaching (NARST) in Baltimore, MD, USA, April 14-17, 2016.
- Chu, H-E., Martin, S., Choi, S.E., Koo, H., & Mgbemene, S. (September, 2016). *Intercultural Project on STEAM Education*. Invited presentation to the Australia-Korean School Linkages Workshop hosted by the Australian Embassy, Seoul, Republic of Korea on September 23, 2016.
- 19. Martin, S. (February, 2016). Understanding participation and engagement in science classrooms: Implications for understanding the role of culture in science classrooms in Asia. Invited presentation to the Science Education Research Center at the National Taiwan Normal University (NTNU) in Taipei, Taiwan, February 18, 2016.

- 20. **Martin, S.** (July, 2015). Cogenerating possibilities for success in science classrooms: dialogues that support teachers and students to share responsibility and take action. Invited presentation to the Natural Sciences and Science Education (NSSE) department at the National Institute for Education (NIE) in Nanyang Technological University in Singapore, July 23, 2015.
- 21. **Martin, S.** (July, 2015). Using cogenerative dialogues as methodology and pedagogy to improve science education practice and research. Invited presentation to the Natural Sciences and Science Education (NSSE) department at the National Institute for Education (NIE) in Nanyang Technological University in Singapore, July 21, 2015.
- 22. Martin, S. (July, 2014). Using Inductive teaching strategies to promote conceptual understanding in science (생명과학교육의 교수 이론과 실제: 구성주의 기반 개념획득 모형). Invited presentation as a special lecture for 2014 Biology Teacher Training Program, Pusan National University, Pusan, Korea, July 28, 2014
- 23. **Martin, S.** (July, 2014). *Examining interactions from a sociocultural perspective to make sense of student silence in science classrooms in Korea*. Invited presentation to the Natural Sciences and Science Education (NSSE) department at the National Institute for Education (NIE) in Nanyang Technological University in Singapore, July 11, 2014.
- 24. **Martin, S.** (July, 2014). *The impact of globalization on immigration in Korea and its potential to affect science teaching and learning at the classroom level.* Invited presentation to the Natural Sciences and Science Education (NSSE) department at the National Institute for Education (NIE) in Nanyang Technological University in Singapore, July 10, 2014.
- 25. Martin, S. (May, 2014). Using Concept Attainment as a teaching strategy in Biology. Invited presentation for the undergraduate Biology Education program, Pusan National University, Busan, Korea, May 30, 2014
- 26. Martin, S. (January, 2014). Using qualitative research methodologies and sociocultural theory to shine new lights on challenges in science education. Invited presentation as a special lecture for the 2014 East-Asian Association for Science Education (EASE) Winter School, Ewha University, Seoul, Korea, January 16, 2014.
- 27. Martin, S., & Park, J. (March, 2012). *Globalization and Science Education: Issues impacting language learners in school science*. Invited by Dr. Chan-Jong Kim (Seoul National University) and presented for the Advancing Practice & Horizon Expansion in Earth Science Education (APHEESE) as a professional development workshop, Seoul, Republic of Korea, March 13, 2012.
- 28. Martin, S., & Siry, C. (March, 2012). *Globalization and Science Instruction*. Symposium presentation with Reinders Duit, and Mei-Hung Chiu. Paul Hewson served as discussant for this international symposium at the annual meeting of the National Association for Research in Science Teaching, (NARST) Indianapolis, IN, March 25-March 28, 2012.
- 29. Martin, S., & Siry, C. (September, 2011). *The role of social networks in science education research: A global context.* Paper presented as part of invited symposium presentation for NARST International Committee Presentation at the meeting of the European Science Education Research Association (ESERA), Lyon, France, September 1-5, 2011.
- 30. **Martin, S.** (August, 2011). *The Penn Science Teacher Institute (PennSTI): Findings from a tenyear longitudinal study informed by sociocultural perspectives.* Invited by Dr. Jee-Young Park (Seoul National University) and presented to participants in the Science Education for the Next Society (SENS) at Seoul National University, Seoul, South Korea.
- 31. **Martin, S.** (July, 2010). A collaborative approach to science teacher education: Coteaching, cogenerative dialogues, and video based reflection. Invited by Dr. Chan-Jong Kim (Seoul National University) and presented to participants in the Science Education for the Next Society (SENS) at Seoul National University, Seoul, South Korea.

- 32. Martin, S. (January, 2010). Virtual Worlds, Avatars, and Chat Rooms: Conducting research in on-line environments. Invited by Dr. Charles Max, Professor of Educational Sciences for Language, Culture, Media and Identities (LCMI) program, Luxembourg University, Luxembourg, January 29, 2010
- 33. **Martin, S.** (December, 2009). *The End(s) of Science Education? Situated Practices of Science Learning for Social/Political Transformation*. Invited by Dr. Carol Brandt, Virginia Tech University, to serve as discussant for a multi-paper session to be presented at the Annual meeting of the American Anthropological Association, Philadelphia, PA.
- 34. **Martin, S.** (May, 2009). *Putting Students First by Sharing Responsibility and Taking Action.* Invited by Dr. Andrea van Duzor, Department of Chemistry and Physics, to present seminar for the Noyce Scholar Seminar Series, at Chicago State University, Chicago, IL, May 12-13, 2009.
- 35. **Martin, S.** (April, 2009). Participant and Chair for individual paper set session presented at the conference entitled *Cultural Studies of Local Knowledge Systems: Challenging the Universalism-Multiculturalism Juxtaposition in Science Education Research*. Invited by Drs. Jennifer Adams, Michiel van Ejick, and Kathryn Scantlebury, to the 3rd annual Springer Forum on the Cultural Studies of Science Education, San Diego, CA, April 12, 2009.
- 36. Scantlebury, K., & Martin, S. (April, 2009). *How does she know? Re-visioning conceptual change from feminist perspectives*. Invited paper presentation by Strand 1 Coordinator Dr. Catherine Milne, to participate in an invited symposium entitled *Finding connections between psychological and sociological perspectives in conceptual change* at the annual national meeting of the National Association for Research in Science Teaching (NARST), Garden Grove, CA April 17-21, 2009.
- 37. Martin, S. (January, 2007). *Catalyzing change in Elementary Science Education: Using cogenerative dialogues and video analysis to transform classrooms*. Invited by Dr. Frances Rust and presented for the department of Teaching and Learning at the Steinhardt School of Education at New York University, New York, NY.
- 38. Martin, S. (February, 2007). *Catalyzing change in Science Education: Using cogenerative dialogues and video analysis to transform classrooms*. Invited by Dr. Lynn Columba and presented for the department of Teaching, Learning, and Technology at the School of Education at Lehigh University, Lehigh, PA.
- 39. Martin, S. (February, 2007). *Catalyzing change in Science Education: Using cogenerative dialogues and video analysis to transform classrooms*. Invited by Dr. Sheila Vaidya and presented for the School of Education at Drexel University, Philadelphia, PA.
- 40. **Martin, S.** (July, 2006). *Catalyzing change in elementary science: A model for teaching chemistry in the MISEP*. Invited presentation for the American Chemical Society's K-8 Summer Conference aimed at developing a chemistry content based, ACS endorsed curriculum for elementary and middle school science teachers, American Chemical Society (ACS), Washington, DC.
- 41. **Martin, S.** (June, 2006). *Bryn Mawr College Summer Science Research Series*. Invited presenter on panel discussing careers in science. Presented for the undergraduate science and mathematics majors at Bryn Mawr College, Bryn Mawr, PA.
- 42. **Martin, S.** (July, 2005). *Using inquiry in the middle school science classroom*. Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development session for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 43. Martin, S. (April, 2005). Co-generating solutions with cogenerative dialogues in a Master's of Chemistry Education program for high school science teachers. Invited by Dr. Philip Anderson

and presented for the Doctoral Program in Urban Education, The Graduate Center at the City University of New York, New York, NY.

44. **Martin**, S. & LaVan, S-K. (December, 2003). *Coteaching and cogenerative dialogue: Informing practice and transforming the roles of participants*. Invited by Dr. Kathryn Scantlebury and presented for the Secondary Science Education Program, College of Arts & Science at the University of Delaware, Newark, DE.

WORKSHOPS

- 45. **Martin**, S. (June, 2018). *Using Video Analysis to Reframe Research on Classroom Interactions*. Workshop presentation for the International Science Education Conference (ISEC), NIE, Singapore, June 19 June 21, 2018.
- 46. **Martin**, S. (May, 2018). *Safety Workshop for SNU International Members and Families*. Jointly developed three-hour safety workshop presented with Officer Seokjun Lee (Seoul Gwanak Police Department) and Officer Kangwon Lee (Gwanak Fire Department). SNU Office of International Families, Seoul National University, Seoul, Republic of Korea May 16, 2018.
- 47. Martin, S. (September 2017). *Examining publishing trends in science education: Implications for language and politics in research*. Invited by ToSEF-BK21+ program to give a presentation for graduate students at Seoul National University, Korea on September 29, 2017.
- 48. Martin, S. (June, 2017). Protecting Human Subjects in Research: the IRB and You! 연구행위에 있어서의 피험자의 보호: 기관심사위원. Invited by Dr. Mikyung Kim to offer a workshop for international students in the SNU Department of Medicine on Ethics in Social Science Research. Sponsored by SNU Research Ethics Committee on June 14, 2017.
- 49. Martin, S. (February, 2017). Exploring the Impact of Participation in an Intercultural STEAM Program on Teachers and Students. Invited by Dr. Wei-Chun Tang to give a workshop for teachers at Wanfang High School. Taipei, Taiwan on February, 21, 2017.
- 50. **Martin, S.** (January, 2017). Using Inductive Thinking Strategies to Attain Science Concepts. Invited by Dr. Chun-Yen Chang to give a workshop for students and teachers at Dajia Senior High School. Dajia, Taiwan on January 20, 2017.
- 51. Martin, S. (October, 2016). Action Research, Video Reflection, and Cogenerative Dialogue: Powerful Tools for Teachers Addressing Equity Issues in (Science) Education. Invited by the KOICA (Korea International Cooperation Agency) to give a workshop for teachers from the Abuja Model School Project in Nigeria. Busan, Republic of Korea on October, 31, 2016.
- 52. **Martin, S.** (July, 2016). Cogenerating possibilities for success in science classrooms: dialogues that support teachers and students to share responsibility and take action. Invited by Professor Hsin-Kai Wu from National Taiwan Normal University to give a workshop for a professional development session for graduate researchers entitled Science Education from Theory to Practice. Taiwan Ministry of Science and Technology (MOST), July 20, 2016.
- 53. Chu, H.E., **Martin, S.**, Treagust, D., Park, J., & Ahn, W. (April 2016). *The benefits and challenges of engaging in cross-cultural international collaborative research*. Invited Pre-Conference workshop for the International Research committee for the annual meeting of the National Association of Research in Science Teaching (NARST) in Baltimore, MD, USA, April 14-17, 2016.
- 54. **Martin, S.**, & Park, J. (August, 2012). *Integrating Reading and Writing with Inquiry: Diggin' into Science with Wigglin' Worms*. Invited by Dr. Sun-Kyung Lee (Cheongju National University of Education) to present a 5-hour professional development workshop for in-service elementary science teachers, Cheongju, Republic of Korea, August 13, 2012.
- 55. Siry, C., & Martin, S. (July, 2012). Video Analysis Workshop: Using video annotation tools to analyze interactions in the science classroom. Invited by Dr. Jee-Young Park (Seoul National

University) to present a 5-hour professional development workshop for SENS-BK21 institute, Seoul, Republic of Korea, July 20, 2012.

- 56. Siry, C., & Martin, S. (July, 2012). *Video Analysis Workshop: Using video annotation tools to analyze interactions in the science classroom*. Invited by Dr. Hyunju Lee (Ewha University) to present a 5-hour professional development workshop for science education graduate students, Seoul, Republic of Korea, July 19, 2012.
- 57. Scantlebury, K., Wassell, B., Malik-Abdul, C., & **Martin, S.** (April, 2011). *Project G-SPELL: Gender and Science Proficiency for English Language Learners*. Two-hour workshop seminar presented for members of the Urban Science Education Research-Seminar (USER-S), New York, NY, April 16, 2011.
- 58. **Martin, S.** (November, 2009). *Cogenerative dialogues as a classroom management strategy.* Invited by Dr. Kristine Lewis and presented as a professional development workshop for the Transitions to Teaching program, Drexel University, Philadelphia, PA.
- 59. **Martin, S.** (October, 2009). *Making a difference in K-12 science education*. Invited by Dr. Nancy Minugh-Purvis as panelist for the Careers for Interdisciplinary Health Sciences Graduate Seminar, College of Medicine, Drexel University, Philadelphia, PA.
- 60. **Martin, S.** (July, 2009). *Aligning administrative assessment tools and inquiry science teaching.* Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development summer workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 61. **Martin, S.**, Ruggirello, R., Schmitt, C., & McManus, W. (May, 2009). *Virtual Worlds, Avatars, and Chat Rooms: IRB and Investigator responsibilities.* Invited by Dr. Sree Murthy, Director of Drexel IRB, to present seminar for workshop on "The Oversight of the Investigator and Sponsored Human Subjects Research" for the Office of Regulatory Research Compliance and Clinical Research Group, Drexel University, Philadelphia, PA, May 21, 2009.
- 62. **Martin, S.** (July, 2008). *Aligning administrative assessment tools and inquiry science teaching.* Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development summer workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 63. **Martin, S.** (March, 2008). Participant and Chair for individual paper set session presented at the conference entitled *Cultural Studies and Conceptions / Conceptual Change: Reuniting Psychological and Sociological Perspectives*. Invited by Drs. Kenneth Tobin and Wolff-Michael Roth, (Eds.) of Springer journal *Cultural Studies of Science Education* to participate in the 2nd annual Springer Forum. CUNY Graduate Center, Manhattan, NY, March 29, 2008.
- 64. **Martin, S.,** & Scantlebury, K. (January, 2008). *More than a conversation: Using cogenerative dialogues in the professional development of high school chemistry teachers.* Presentation at the ASTE Special Awards Session for paper receiving Award IV Innovations in Teaching Science Teachers.
- 65. **Martin, S.** (January, 2008). *Supporting inquiry in the classroom: The role of administrative support in improving science education.* Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development winter workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 66. **Martin, S.**, Scantlebury, K., & Carambo, C. (November, 2007). *Cogenerative dialogues as a classroom management strategy*. Invited by Dr. Kristine Lewis and presented as a professional development workshop for the Transitions to Teaching program, Drexel University, Philadelphia, PA.
- 67. **Martin, S.** (July, 2007). *Aligning administrative assessment tools and inquiry science teaching.* Invited by Connie Blasie and presented for the Science Education Administrator's Academy

professional development summer workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.

- 68. **Martin, S.** (January, 2006). *Supporting inquiry in the classroom: The role of administrative support in improving science education.* Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development winter workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 69. Martin, S. (November, 2005). *Researchers not researched: Tools for teacher action*. Invited by Connie Blasie and presented for the Science Education Administrator's Academy professional development fall workshop for the Penn Science Teacher Institute (PennSTI), University of Pennsylvania, Philadelphia, PA.
- 70. **Martin, S.** (August, 2005) (ESIS) *Early Sisters in Science Pre-K 3*. Two-day science workshop presentation invited by Dr. Penny Hammrich and presented for the Sisters in Science Summer Symposium participants, Queens College, Flushing, NY.

DOCTORAL STUDENT COMMITTEES (32 STUDENTS)

ADVISOR / CO-ADVISOR [7 students]

Science Education Department - Doctorate of Science Education

 FAISAL. (February 2021). Promoting Indonesian Pre-Service and In-Service Biology Teachers' Perceptions and Teaching Practices on Socioscientific Issues (SSI) [생명과학 예비 교사와 현직 교사의 과학관련 사회적 쟁점(SSI)에 대한 인식과 실천 촉진 방안]. Biology Education Department

- 2. Jennifer Park. (August 2016). A mixed-methods study investigating Korean teachers' attitudes and self-efficacy on inquiry and language-based instructional strategies for culturally and linguistically diverse students. Biology Education Department.
- 3. Rachel Ruggirello (2011-2015). *The Role of Administrator and Teacher Leadership in Secondary Science Education Reform*. Doctorate in Philosophy from the Science Mathematics Education Centre, Curtin University, Perth, Australia.

In Progress

- 4. SHIN, Dong-Ah. (present). *Topic undecided*. Doctorate of Science Education, Environmental Education Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 5. LEE, Joo-Yeon. (present). *Topic undecided*. Doctorate of Science Education, Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 6. KANG, Da Yeon. (present). *Topic undecided*. Doctorate of Science Education, Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 7. EOM, Kieun. (present). *Topic undecided*. Doctorate of Science Education, Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

CHAIR [5 students]

Science Education Department - Doctorate of Science Education

8. KIM, Jong-Uk. (September 2015 - February 2021). 실천 지향 기후변화 활동 참여를 통한

초등학생의 실행 과정에서의 기후 실천가 정체성 탐색 (Exploring Elementary School Students' Climate Activist Identity in Practices in an Action-oriented Climate Change Activity). Earth Science Education Department.

- 9. Cha, Hyun-Jung. (February 2020). 중학생들의 SOHO 데이터를 활용한 태양 자전 모델링 학습 실행 이해: 개념적 자원과 권위를 중심으로 [Understanding of middle school students' practice in modeling-based learning about solar rotation using SOHO data: Focusing on conceptual resources and authority]. Earth Science Education Department
- 10. Hartono Bancong B. (February 2020). Exploring the Processes and Factors of Collaborative Thought Experiments During Physics Problem-Solving Activities. Physics Education Department,
- 11. Park, Jisun. (August, 2016). *Students' unintended learning in primary school practical science lessons: What is learned and how it occurs*. Physics Education Department.

Interdisciplinary Program in Environmental Education - Doctorate of Environmental Education

12. BAEK, Seongheui. (February 2022). 고등학생의 기후변화 대응 실천역량 검사도구 개발과 관련 변인 [The Development an Inventory to Measure Action Competence on Climate Change (ACoCC) for High School Students with Variables Related to ACoCC].

COMMITTEE MEMBER [24 students]

Seoul National University - Doctorate of Science Education

- 13. PARK, Changmi. (February 2022). 테크놀로지 활용 탐구 기반 시민과학 프로그램 참여 학생의 과학 탐구와 사회적 전이 경험 [Students' Experiences of Scientific Inquiry and Transference during School Citizen Science Program Based on Technology Embedded Scientific Inquiry]. Earth Science Education Department
- 14. GA, Seok-Hyun. (February 2021). Development and Application of Action-oriented Science Education Program Using the Internet of Things: Focused on Technical Configuration, Teachers' Technical Difficulties, and Students' Environmental Science Agency [사물 인터넷을 활용한 실천지향 과학 교육 프로그램의 개발 및 적용 기술 구성, 교사의 기술 관련 어려움, 학생의

환경과학행위성을 중심으로]. Earth Science Education Department

- 15. Ha, Heesoo (February 2020). Exploring student agency during the shift to collaborative contributors in small-group argumentation activity in middle school science classrooms. Biology Education Department
- 16. LEE, MiAe. (March, 2016 February 2019). 고등학교 과학교사의 모델링 적용 수업에 대한 실천적 전문성 발달 분석. A Study on the Development of Practical Expertise on the Modeling Application Classes of High School Science Teachers. Earth Science Department
- 17. JANG, Eunjin. (March 2015 February 2019). *Elementary School Teachers' Avoidance Motivation for teaching science in Korea*. Earth Science Department
- 18. CHO, Eunjin. (March, 2016 ~ February, 2019). 예비 지구과학교사의 NOS 교수 전문성 사례 연구:과학교수지향 및 NOS 교수 신념을 매개로 한 NOS-PCK 탐색. A Case Study of Prospective Earth Science Teachers' Teaching Expertise of 'Nature of Science (NOS)': Exploring NOS-PCK Mediated by Orientation to Teaching Science and Beliefs about Teaching NOS. Earth Science Department,
- 19. CHOI, YoonSung. (March, 2016 ~ February 2019). 야외지질답사 및 과학적 모델 생성 과정에서 학생들이 사용하는 제스처에 대한 탐색 -다면적 상호작용 분석 방법을 중심으로. Exploring Students' Use of Gestures for Creating Scientific Models while on Geological Field Trips and during Modeling Activities: Focusing on Multimodal Interaction Analysis. Earth Science Department.

20. Hunkoog Jho. (November, 2012). Factors in decision-making process across socio-scientific issues: Through the analysis of public's internet debates and undergraduate students' classroom discussion. Physics Education Department.

External University - Doctorate degrees

- 21. GREEN, James. (February 2021). Exploring the development of computational thinking practice guidelines and its implication applicable in STEAM lessons. Chosun University, Korea.
- 22. Cynthia Pantinople. (December 2017). *Exploring Science Teacher Education in the Philippines through the Lens of Cultural Historical Activity Theory (CHAT)*. Daegu University, Republic of Korea.
- 23. Gao, Lei. (August, 2016). Instructional Model for the Development of Emotional Competences in SSI Education. Ewha Women's University, Seoul, Republic of Korea.
- 24. Kim, Hong-Jeong. (July, 2013). Critical ethnographic research to improve scientific fluency of students with Special Education Needs (SEN). Daegu University, Daegu, Republic of Korea.
- 25. Poh Hiang Tan (Spring 2018). Singapore Teachers' Views and Enactment of Formative Assessment During Hands-on Activities in Elementary Science Classrooms. National Institute of Education, Singapore.
- 26. Cristobal Carambo (August 2012). *Race, culture, and discourse in science education*. Doctor of Philosophy from the Science Mathematics Education Centre, Curtin University, Perth, Australia.
- 27. Erica Blatt (May 2010). *A sociocultural approach to transformative learning in the environmental science classroom*. Department of Education, University of New Hampshire.
- 28. Eileen Baker (March, 2010). *Improving the teaching and learning of science in a suburban junior high school on Long Island: Achieving parity through cogenerative dialogues*. The Graduate Center, City University of New York, New York.
- 29. Femi Otulaja (December, 2009). *Affording culturally-adaptive science teaching through cogenerative dialoguing*. The Graduate Center, City University of New York, New York.
- 30. Christina Siry (April, 2009). Fostering solidarity and transforming identities: A collaborative approach to elementary science teacher education. The Graduate Center, City University of New York, New York.

NOTE: AERA 2010 Outstanding Dissertation Award, *Division K Teaching and Teacher Education* **NOTE: ASTE 2010 Outstanding Paper Award**, *Innovations in Teacher Education*

- 31. Ashraf Shady (August, 2008). *Immigration and culture as factors mediating the teaching and learning of science.* The Graduate Center, City University of New York, New York.
- 32. Christopher Emdin (May, 2007). Exploring the contexts of Urban Science Classrooms: Cogenerative Dialogues, Coteaching, and Cosmopolitanism. The Graduate Center, City University of New York, New York.

NOTE: 2008 PDK International Outstanding Doctoral Dissertation Award NOTE: ASTE 2008 Outstanding Paper Award, *Innovations in Teacher Education*

- 33. Edward Lehner (May, 2007). *Cogenerative dialogues and coteaching as fields for transforming urban teaching and learning*. The Graduate Center, City University of New York, New York.
- 34. Anita Abraham (August, 2007). Sociocultural perspectives on teacher-student relationships in an urban chemistry classroom. Doctor of Philosophy from the Science Mathematics Education Centre, Curtin University, Perth, Australia.
- 35. Gillian Bayne (August, 2007). *Identity, culture and shared experiences: The Power of cogenerative dialogues in urban science education.* The Graduate Center, City University of New York, New York.
- 36. Wesley Pitts (August, 2007). *Being, becoming, and belonging: Improving science fluency during laboratory activities in urban schools.* The Graduate Center, City University of New York, New York.

<u>In Progress</u>

37. Mohamed Faizal Bin Badron. (February 2016 – present). Using cogenerative dialogue to mediate conceptual change in science: A case study of four primary schools in Singapore. National Sciences and Science Education (NSSE), National Institute of Education, Singapore. (COMMITTEE MEMBER)

GRADUATE (MASTER) STUDENT COMMITTEES (24 STUDENTS)

ADVISOR [19 students]

Science Education Department

- 1. KIM, Myeongji (February 2022). 보편적 학습설계 기반 과학관 유튜브 교육 콘텐츠 체크리스트 개발 [Developing a Universal Design for Learning (UDL) Checklist for Guiding the Development of YouTube Educational Content for Science Museums].Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 2. KIM, YoungBum. (February 2022. 통합 과학 교실에서 특수교육이 필요한 학생에 대한 과학

교사의 인식 및 자기 효능감과 수업 실천 연구[A Study on Science Teachers' Perceptions, Self-Efficacy and Teaching Practices of Students with Special Education Needs in Inclusive Science Classes]. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

3. KIM, Jiwon. (August 2020). 다문화 교육을 위한 과학 교과서 사람 사진 분석 - 비판 인종

이론 관점에 [Analysis of people's photo in Science textbooks for Multicultural Education perspective : applying in Critical race theory]. Master's of Biology Education, Biology Education Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

- 4. LEE, Doo-Sung. (March 2018 February 2020). 도시 및 농촌 지역 초등학교 관리자의 다문화 학생에 대한 인식 비교 연구 : 과학 학습과 STEM 관련 직업 선택을 중심으로 (Comparative Study of Urban and Rural Elementary School Administrators' Perception on Multicultural Students : Focusing on Science Learning and STEM Career Choices.) Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 5. EOM, Kieun. (March 2017 August 2020). 과학교육용 게임에 반영된 과학의 본성 요소. (The Nature of Science (NOS) Reflected in Science Education Games). Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 6. GI, Gyeong Mi. (September 2016 February 2019). 2000~2017 년 공평한 비형식 과학교육 및 학습에 대한 연구 동향 탐색 - 네트워크 분석법을 이용하여. *Research Trends of Equitable Informal Science Education and Learning from 2000 to 2017 Using Network Analysis*. Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea.(ADVISOR)
- 7. AHN, Wanjoo. (March 2015 August 2017). 다문화 배경 언어학습자의 과학 및 언어 학습 증진을 위한 교수 전략으로서 '모델공동구성'의 효과. Examining the Effectiveness of Model Coconstruction as an Instructional Strategy for Improving Science and Language Learning for Culturally and Linguistically Diverse Students in Korea. Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

8. KANG, Da Yeon. (September 2015 – August 2017). 경험학습 강좌 참여에 따른 예비 과학교사의 통합교육 환경의 과학교육에 대한 인식 변화. Examining Changes of Pre-service Science Teachers' Perceptions about Inclusive Science Education through Participation in Experiential Learning Course. Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

Interdisciplinary Environmental Education

- 9. SONG, GaYoung. (September 2015 February, 2017). Development and Utilization of an Evaluation Tool for Selecting English Language Picture books for Teaching ESD in Elementary Classrooms. Master's of Interdisciplinary Environmental Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 10. LEE, Youngjoo (September 2015 February, 2016). Using ePCK as a framework for examining elementary teachers' professionalization of teaching in a graduate level Interdisciplinary Environmental Education program. Master's of Interdisciplinary Environmental Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

Global Education Cooperation

- Neredly Villegas Contreras, Alma (August, 2021). An analysis of the Mexican Education System Response to COVID-19 with a focus on Primary Teachers' Perspectives. Master's in Education, Global Education Cooperation Department, College of Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 12. SPRONG, Leslie Elizabeth. (September 2018 February 2020). Designing Culturally Relevant Environmental Education in North East India via a field-based collaborative approach. 인도 동북부 지역의 문화에 적합한 환경교육 프로그램 설계: 현장 기반 협력 접근을 통하여. Master's of Global Education Cooperation, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 13. KIM, Eui Ju. (March 2013 February 2015). Understanding student and teacher interactions in Korean high school science classrooms from a structure/agency dialectic perspective: Implications for pedagogy and research. Master's of Physics Education thesis, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 14. CHA Eun Hee (September 2013 February 2015). Examining Korean teacher's attitudes and self-efficacy towards inquiry and language based teaching to culturally and linguistically diverse students. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

Research in Progress

- 15. SHIN, YaeHee. (present). *Topic undecided*. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 16. CHO, Eunbyul. . (present). *Topic undecided*. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 17. NOH, Jeongmin. (present). *Topic undecided*. Master's of Environmental Education, Education, Environmental Education Department, Seoul National University, Seoul, Republic of Korea. (THESIS ADVISOR)
- 18. KIM, SuYeon. (present). *Topic undecided*. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)
- 19. CHAE, JeongMin. (present). *Topic undecided*. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (ADVISOR)

CHAIR [9 students]

Science Education Department

- 20. NA, Seoha. (February, 2022). Exploring Teacher Agency in Citizen Science Classes using Arduino. Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 21. KWON, Jihye. (February, 2022).확장 시민과학자로서 요구되는 핵심 역량 도출 [Deriving the Key Competencies required as an Extreme Citizen Scientist.]. Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 22. UM, Hye-jin. (March 2022-February 2022). 아두이노를 활용한 시민과학 동아리 활동에서 나타나는 고등학생의 시민과학 정체성 탐색 - 행위력을 중심으로 - .(Exploring the Citizen Science Identity of High School Students in a Citizen Science Club Activity Using Arduino -Focused on Agency). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 23. SEO, Suhyun. (March 2021 February 2021).사회적 실천 지향 기후변화 SSIs 동아리 참여 학생들의 사회적 환경 정체성 탐색. (Exploring Social Environmental Identity of Students Participated in a Social Action-Oriented Climate Change SSIs Club Program). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 24. YANG, Jun. (March 2021 February 2021). 기후변화 관련 국제 협력 교육 프로그램 전후 대학생들의 기후변화에 대한 인식 변화와 친환경 행동 인식 변화 분석 (Examining changes of university students' perceptions on climate change after attending international climate change education program). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 25. WON, Arang (March, 2019 February 2021). 기후변화 SSI-STEAM 수업에서 나타난 교사의 실천적 지식(A Teacher's Personal Practical Knowledge in SSI-STEAM Classrooms dealing with Climate Change). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 26. CHOI, Su-Yeon. (December 2019 February 2021). 기후위기 SSI-STEAM 수업이 중학생의 기후 소양에 미치는 영향. (The Impact of Climate Crisis SSI-STEAM Lessons on Junior High School Students' Climate Literacy). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 27. PARK, Chang Mi. (February, 2013). Action Research Using Cogenerative Dialogue to Improve PCK in a Beginning Teacher's Elementary Science Classroom. Master's of Earth Science Education, Seoul National University, Seoul, Republic of Korea. (CHAIR)

Global Education Cooperation

- 28. YOU, Yikun. (February, 2017). *ICT Integration in Teacher Education: A Teacher Training Institute Case in Lao PDR*. Master's of Global Education Cooperation, Seoul National University, Seoul, Republic of Korea. (CHAIR)
- 29. MOSRUR, Ridwanul (August, 2018). Re-examining Freire: Connecting Education and Development. Master's of Education, Global Education Cooperation Department, Seoul National University, Seoul, Republic of Korea.(CHAIR)

COMMITTEE MEMBER [3 students]

Science Education Department

- 30. LEE, Myeong-Won. (March, 2019 February 2021). 델파이 기법을 활용한 기후변화 대응 실천역량 탐색. (Analysis of the Components of Action Competence for Climate Change Based on Delphi Method). Earth Science Education Department, Seoul National University, Seoul, Republic of Korea. (COMMITTEE MEMBER)
- 31. YANG, Seul-Gi LEE, (March 2017 February 2019). 지구계 교육 모듈 적용을 통한 초등학교 4 학년 학생들의 지구적 소양 탐색. *Exploring Fourth Grade Students' Earth Literacy in an Earth Systems Education Class*. Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea. (COMMITTEE MEMBER)
- 32. SHIM, Eunji. (March 2017 January 2019). 고등학생의 과학의 본성 이해를 위한 과학사 롤플레잉게임(SHRPG) 개발: 대륙이동설 스토리텔링을 중심으로. Development of a Science History Role-Playing Game for High School Students' Understanding of Nature of Science: Focus on Storytelling of the Continental Drift Theory. Master's of Science Education, Earth Science Department, Seoul National University, Seoul, Republic of Korea.(COMMITTEE MEMBER)

CO-ADVISOR (Master degree program in Education) [13 students]

Graduate School of Education, University of Pennsylvania, Philadelphia, USA Erica Blatt (2002-2004); Regina Zurbano (2002-2004); Ian Stith (2002-2004); Scott Koehler (2002-2004); Allison Ford (2002-2004); Tara Morales (2002-2004); Jonathan Ngyuen (2002-2004); Dana Easton (2002-2004); Erica Chang (2002-2004);Ignacio Jayo (2002-2004); Jessica Stouff (2002-2004); Cristen Place (2002-2004)

UNDERGRADUATE THESIS ADVISOR (7 STUDENTS)

- 1. Jiwon, Kim. (). *Effective Science Teaching Strategies for Deaf Special Education Students*. Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea
- 2. Jeong, Jaehyun. (February, 2020). *Effective Science Teaching Strategies for Deaf Special Education Students*. Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.
- 3. Yoon, Hannah. (February, 2018). 예비 교사들의 팀 티칭 수업에서 역할분담과 동료 장학을 통한 수업의 변화. (*Improving Pre-Service Teachers' teaching through role sharing and peer supervision during team teaching*). Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea. [**Best Undergraduate Thesis Award]
- 4. Bae, Taeil. (February, 2018). 청각장애 학생을 대상으로 한 과학탐구활동 수업을 경험한 예비 과학교사의 청각장애에 대한 인식. (*Pre-service science teachers' perceptions about science inquiry class for hearing-impaired students*). Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.
- 5. Eom, Kieun. (February, 2017). 고등학생 성별에 따른 과학 관련 진로의 인식 차이. (*Differences in Korean Male and Female High School Students' Perceptions about Science-Related Career*). Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.

- 6. Heo, YoungJae. (February, 2017). 2011 기본교육과정 과학과에 대한 과학교사의 인식분석. (*Analysis of science teachers' cognition about the 2011 special education basic curriculum*). Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.
- 7. Shin, DongMin. (August, 2016). *Examining High School Students' Perceptions about the Credibility of Different Science Literacy Resources Focused on Climate Change*. Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.
- 8. Kang, Dayeon. (August, 2015). The effects of teacher and school supports on student science achievement in the American Inclusive Classroom. 미국 과학 통합학급에서 특수학생들이

얻는 효능과 학교·교사 차원의 지원. Bachelor's thesis for Department of Earth Science Education, Seoul National University, Seoul, Republic of Korea.

UNIVERSITY TEACHING EXPERIENCES (SELECTED EXAMPLES)

Course Development and Re-design

Assistant Professor, Seoul National University, Seoul, Republic of Korea. August 2011 <u>EDUC 638 Sociocultural Perspectives in Science Education Research</u> - This course provides theoretical foundations and practical research methods of socio-cultural approaches for researchers who are interested in science teacher education. Theories of socio-cultural approaches are introduced and research studies are shared and analyzed. Students develop, present, and share research plans focusing on socio-cultural research approached in science teacher education.

<u>EDUC 616 Qualitative Research Methods in Science Education</u> - This course presented historical context for current methods and issues related to qualitative research in science education. It provides an introduction to the history, theory, assumptions, design, and methods of qualitative inquiry in educational settings. The course seeks to ground students in the founding principles of qualitative and ethnographic research. The central focus of the course focuses on how these assumptions have changed over time.

Courses Taught 2002 – present

Doctoral / Master's Science, Mathematics, Technology Education

- 1. EDUC M1879 Writing in Science Education Research Seoul National University
- 2. EDUC M1879 Gender and Science Seoul National University
- 3. EDU 716.913 Classroom Interactions in the Science Education- Seoul National University
- 4. EDU 904.616 Teachers as Researchers in Science Education Seoul National University
- 5. EDU 636.616 PCK & Science Teacher Education Seoul National University
- 6. EDU 716.616 Qualitative Research Methods in Science Education Seoul National University
- 7. EDU 716.638 Socio-Cultural Approaches in Science Education Seoul National University
- 8. U ED 722000 Contemporary research, theory and practice in SMT Graduate Center, CUNY
- 9. U ED 801000 Independent Reading and Research Graduate Center, CUNY
- 10. EDUC 520 (Professional Studies of Instruction) Drexel University
- 11. EDUC 514 (Science Teaching Methods) Drexel University
- 12. EDUC 524 (Current Research in Curriculum and Instruction) Drexel University
- 13. EDUC 540 (Supervised Field Experience) Drexel University
- 14. EDUC 584 (Teaching Science in the Middle School) University of Penn
- 15. EDUC 657 (Advanced Topics in Teaching Secondary School Science) University of Penn

- 16. EDUC 627 (Teaching Middle & Secondary School Science Education) University of Penn
- 17. MCE 636 (Advanced Topics in Teaching & Learning Chemistry) University of Penn

Graduate Elementary Science Education

- 1. EDUC 515 (Diversity and Today's Teacher) Drexel University
- 2. EDUC 775 (Integrating Children's Literature and Content Instruction) Drexel University
- 3. EDUC 524 (Current Research in Curriculum and Instruction) Drexel University
- 4. EECE 798 (Reading and Writing for Learning in Science)- Queens College, CUNY
- 5. EECE 757 (Physical Science in the Elementary Science Classroom) Queens College, CUNY,
- 6. EECE 555 (Science in the Elementary School) Queens College, CUNY, Flushing, NY

Undergraduate Elementary and Secondary Science Education

- 7. EDUC M1829 Blending Learning in Science Education Seoul National University
- 8. EDUC 308 Teaching science to diverse students Seoul National University
- 9. EDUC 307 Science and Language Learning - Seoul National University
- 10. EDUC 320 (Professional Studies of Instruction) Drexel University
- 11. EDUC 324 (Current Research in Curriculum and Instruction) Drexel University
- 12. EDUC 114 (Science Teaching Methods) Drexel University
- 13. EDUC 775 (Integrating Children's Literature and Content Instruction) Drexel University
- 14. EDUC 324 (Current Research in Curriculum and Instruction) Drexel University
- 15. EECE 351 (Science in the Elementary School) Queens College, CUNY

ONLINE - DISTANCE COURSES (*Pre-Pandemic courses)

Undergraduate Elementary Science Education

16. EDUC 314 (K-8 Science Teaching Methods) – Drexel University

17. EDUC 114 (Science Teaching Methods) – Drexel University

Online Graduate Secondary Science Education

18. EDUC 775 (Integrating Children's Literature and Content Instruction) - Drexel University

19. EDUC 516 (Diversity and Today's Teacher) – Drexel University

20. EDUC 514 (Secondary Science Teaching Methods) - Drexel University

21. EDUC 609 (Language and Culture in Education) – Drexel University