

# Won Jung Kim

Curriculum Vitae

Assistant Professor of Science Education  
Santa Clara University  
School of Education & Counseling Psychology  
Department of Education  
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Won Jung Kim is an assistant professor of Science Education in the Department of Education at Santa Clara University (SCU) in California. She is also a former secondary science teacher. Her research focuses on supporting students, teachers, and community members as rightful constructors, critics, and communicators of science, whose critical consciousness, agency, and civic action contribute to addressing social, environmental, and climate justice issues that matter to the local and larger communities they care about. Her current research agenda focuses on: (1) teacher design, practice, and reflection in support of rightful presence and justice-oriented science education; (2) students' and communities' critical construction, critique, and use of science to address social, environmental, and climate justice issues. In these research projects, she uses participatory methods such as research-practice partnerships, community-driven design, ethnography, and critical reflective case studies by employing qualitative and mixed methods. Through her research, teaching, and service, she seeks to create with students, teachers, and community partners consequential learning spaces where educational excellence becomes a daily reality for all students.

## EDUCATION & PROFESSIONAL APPOINTMENTS

### Education

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| 2021, August   | Ph.D. Michigan State University<br>Curriculum, Instruction, and Teacher Education<br>Focus: Science Education<br><i>Dissertation Title: Making Visible and Amplifying Youth-initiated Moments for Rightful Presence in Informal STEM Learning Spaces (2022 Outstanding Dissertation Research Award from the National Association of Research in Science Teaching)</i> |
| 2013, February | M. Ed. Korea National University of Education<br>Biology Education<br><i>Thesis Title: Exploratory Factor Analysis of High School Students' Task Commitment Types in the Context of Biology Classification</i>  |
| 2004, February | B.A., Korea National University of Education<br>Dual Major: Biology Education & General Science Education (with honors)   |

## Professional Appointments

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2021-present	<i>Assistant Professor</i> , Santa Clara University Department of Education, School of Education and Counseling Psychology
2017-2021	<i>Graduate Research Assistant</i> , Michigan State University Science Learning + Partnerships: Partnering for Equitable STEM Pathways (PI : Dr. Angela Calabrese Barton)
2016-2019	<i>Graduate Research Assistant</i> , Michigan State University Articulation and Assessment of Scientific-Style Critical Thinking (PI : Dr. Alicia Alonzo)
2004-2016	<i>Public School Secondary Teacher</i> , Busan, Korea. Subjects taught: General Science, Technology, Computer Science

## FUNDING & GRANTS

### Grants Under Review

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2024	<i>Robert Noyce Teacher Scholarship Program</i> (\$2,999,706), National Science Foundation Project Title: STEM Teaching for Equity through Rightful Presence and Mindset (PI. Kathy Sun; Co-PIs: <b>Won Jung Kim</b> , Sabrina Zirkel, Kathy Stoehr)
2024	<i>Research on Innovative Technologies for Enhanced Learning</i> (\$899,534) National Science Foundation Project Title: Bite-sized AI-infused Sustainability Learning (BASiL): Educational Technology for Distributed Practices in Waste and Energy Management (PI: Sharon Hsiao, Co-PI: <b>Won Jung Kim</b> )
2024	<i>Spencer Small Grant</i> (\$50,000), Spencer Foundation Project Title: Building Environmental Stewardship through AI- Assisted Sustainability Learning for Equitable Waste Management Practices (PI: Sharon Hsiao, Co-PI: <b>Won Jung Kim</b> )
2024	<i>AI Fast Challenges</i> (\$75,040), California Education Learning Lab Project Title: Optimizing Teaching and Learning with AI in Business Analytics Courses (PI: Jung You, Co-PIs: Inkyu Kim, <b>Won Jung Kim</b> )

## Grants Awarded

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- 2024-present *Sustainability Research Grant (\$3,000),*  
Santa Clara University  
Project Title: Developing critical conscious environmental stewardship through an AI-assisted informal waste management learning program (PIs: **Won Jung Kim**, Sharon Hsiao)
- 2024-present *University Research Grant (\$5,000),*  
Santa Clara University  
Project Title: Co-creating with Teachers an Artificial Intelligence Integrated STEM Program for Secondary Students from Communities Historically Excluded in STEM Pipeline (PI: **Won Jung Kim**)
- 2023-present *Emerging Scholar Award (\$10,000),*  
**International Society of Learning Sciences**  
Project Title: Making Space for Climate Justice Action from Classroom to Community: Cross-site Research Practice Partnership with Youth and Teachers (PI: **Won Jung Kim**)
- 2022-2023 *University Teaching Grant (\$5,000),*  
Santa Clara University  
Project Title: Beginning Teachers' Learning to Integrate Climate Justice into Science Classroom Discourse and Practices (PI: **Won Jung Kim**)
- 2022-2023 *Environmental Justice & Common Good Initiative (\$3,000),*  
Santa Clara University  
Project Title: Research-Practice Partnership with Beginning Science Teachers and Their Students in East San Jose Communities toward Taking Climate Conscious Action (PI: **Won Jung Kim**, Co-PI: Kathy Stoehr)

## HONORS, AWARDS, FELLOWSHIP

### Faculty

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- 2024 *Outstanding Paper of the Year,*  
**Korea Association of Science Education**  
Kim, W. J. (2022). AI-Integrated Science Teaching Through Facilitating Epistemic Discourse in the Classroom, *Asia Pacific Science Education*
- 2023 *Science Communication Identities Project Fellow,*  
**Metcalf Institute and Knight Center for Environmental Journalism**  
(PIs: Sunshine Menezes & Bruno Takahashi)
- 2022 *NARST Outstanding Dissertation Research Award,*  
**National Association of Research in Science Teaching**  
Project Title: Making Visible and Amplifying Youth-initiated Moments for Rightful Presence in Informal STEM Learning Spaces

## Graduate Student

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2020	<i>Dissertation Completion Fellowship,</i> Michigan State University
2020	<i>Anderson-Schwille Endowed Fellowship in International Education,</i> Michigan State University
2020	<i>Teacher Education Endowed Fellowship,</i> Michigan State University
2020	<i>Presidential Research Travel Award,</i> Korean Association for Multicultural Education
2019	<i>Research + Practice Fellow,</i> Research + Practice Collaboratory and Metcalf Institute
2019	<i>Delia Koo student award,</i> Asian Studies Center, Michigan State University
2019	<i>Summer Research Fellowship,</i> College of Education, Michigan State University
2019	<i>Research Practicum/ Dissertation Fellowship,</i> College of Education, Michigan State University
2017	<i>Summer Research Development Fellowship,</i> College of Education, Michigan State University
2011-2012	<i>Graduate Scholarship,</i> Korea National University of Education

## Teacher

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2015	<b><i>Winner of National Classroom Teaching Competition,</i></b> <b>1<sup>st</sup> place, Secondary Science</b> Ministry of Education, Korea.
2015	<i>Busan Education Policy Research Award,</i> Ministry of Education, Korea.
2013	<i>Finalist: Best Advisor Teacher for Korean Youth Science Inquiry Fair</i> Project Title: Can We Classify Plants by Stomata Traits? Ministry of Education, Korea.
2008	<i>Best Advisor Teacher for Korean Youth Science Inquiry Fair</i> Project Title: Does Cypress Oil Have Antibiotic Effects? Ministry of Education, Korea.
2008	<i>Advisor Teacher for Busan Youth Science Exhibit</i> Exhibit Booth Title: Show Me the Energy Busan Education Department, Korea
2006	<i>Advisor Teacher for Busan Youth Science Exhibit</i> Exhibit Booth Title: Show Me the Sound Busan Education Department, Korea

## PUBLICATIONS

### Peer-Reviewed Articles

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#### *Peer-reviewed Articles Published & In Press*

16. **Kim, W. J.**, Calabrese Barton, A., Brien, S., & Archer, L. (**in press**). Youth-Initiated Moments of Seeking Justice: Making Visible Youth Imaginaries for STEM Learning. *Cognition & Instruction*
15. Greenberg, D., **Kim, W. J.**, Brien, S., & Calabrese Barton, A. (2024). Designing and Leading Justice-Centered Informal STEM Education: A Relational and Ethical Teaching Framework. *Science Education* <https://doi.org/10.1002/sce.21903>
14. **Kim, W. J.** (2024). Critical Perspectives of School Science: A Science Teacher's Self Reflective Study of Science Classroom Interactions with Students. *Journal of Science Teacher Education*, 1-20. <https://doi.org/10.1080/1046560X.2024.2380187>
13. **Kim, W. J.** (2024). 'At First They Felt Barely Relevant': Teacher Reflective Sensemaking of Justice-oriented Science Teaching. *International Journal of Science Education*, 1-22. <https://doi.org/10.1080/09500693.2024.2344128>
12. **Kim, W. J.** (2022). AI-Integrated Science Teaching through Facilitating Epistemic Discourse in the Classroom, *Asia-Pacific Science Education*, 8(1), 9-42. <https://doi.org/10.1163/23641177-bja10041>
11. Calabrese Barton, A., Greenberg, D., **Kim, W. J.**, Brien, S., Roby, R., Balzer, M., & Archer, L. (2021). Disruptive Moments as Opportunities towards Justice-oriented Pedagogical Practice in Informal Science Learning. *Science Education*, 105(6), 1229-1251. <https://doi.org/10.1002/sce.21682>
10. **Kim, W. J.** (2021). Exploratory Content Analysis: Whiteness in Korean Middle School Science Textbooks. *Multicultural Education Review*, 13(2), 163-178. <https://doi.org/10.1080/2005615X.2021.1919962>
9. Balzer, M., Calabrese Barton, A., **Kim, W. J.** et al. (2021). Reclaiming our science center: Youth co-design of the Katherine Johnson Room. *Dimensions: A Digital Publication of the Association of Science and Technology Centers*.
8. Calabrese Barton, A., **Kim, W. J.**, & Tan, E. (2020). Co-designing for Rightful Presence in Informal Science Learning Environments. *Asia-Pacific Science Education*, 6(2), 285-318. <https://doi.org/10.1163/23641177-BJA10015>
7. **Kim, W. J.** (2019). Teacher as Change Agent for Consequential Learning: One Korean Teacher's Autoethnography on the Dance-with-science Project, *Forum for International Research in Education*, 5(2), 79-96. <https://doi.org/10.32865/fire201952156>
6. **Kim, W. J.**, Byeon, J., & Kwon, Y. (2013). Analysis of Task Commitment Types of Science Learning in High School Students' Biology Classification. *Journal of Korea Association of Science Education*, 33(4), 830-846. <https://doi.org/10.14697/jkase.2013.33.4.863>
5. **Kim, W. J.**, Byeon, J., & Kwon, Y. (2013). Development of Inventory to Classify Task

Commitment Types in Science Learning and its Application to Classify Students' Types. *Journal of Korea Association of Science Education*, 33(3), 679-693.  
<https://doi.org/10.14697/jkase.2013.33.3.679>

4. **Kim, W. J.**, Byeon, J., Lee, I., & Kwon, Y. (2012). Gaze Differences between Expert and Novice Teachers in Science Classes. *Journal of Korea Association of Science Education*, 32(9), 1443-1451. <https://doi.org/10.14697/jkase.2012.32.9.1443>
3. Park, H., Lee, I., Byeon, J., **Kim, W. J.**, & Kwon, Y. (2012). The Analysis of Verbal Interaction on the Process of Elementary Students' Hypothesis Generation Learning. *Journal of Korea Association of Science Education*, 32(8), 1269-1280.
2. Kwon, Y., **Kim, W. J.**, Lee, H., Byeon, J., & Lee, I. (2011). Analysis of Biology Teachers' System Thinking on Ecosystem. *Journal of Korea Biology Education*, 39(4), 529-543.
1. **Kim, W. J.**, & Kwon, Y. (2011). Golgi's and Cajal's Scientific Inquiry Processes on the Neuron. *Brain & Learning*, 1(2), 12-27.

#### *Submitted/Resubmitted*

4. **Kim, W. J.**, Calabrese Barton, A., & Archer, L. (**accepted with minor revision**). Making Space in Support of Youth's Rightful Presence in Informal STEM Learning. *Journal of Research in Science Teaching*
3. **Kim, W. J.** & Rachmatullah, A. (**accepted with major revision**) Science Teachers' Sensemaking of Artificial Intelligence Integrated Science Teaching. *Research in Science Education*
2. **Kim, W. J.** (**submitted**) Nuclear Wastewater Release to the Pacific Ocean: an Environmentally Critical Socio-scientific Issue to Promote Students' and Teachers' Grasp of Evidence. *Interdisciplinary Journal of Environmental and Science Learning*
1. **Kim, W. J.** (**Submitted**) Beginning Teachers' Learning to Integrate Environmental Science Agency into Science Instructional Design. *Journal of Research in Science Teaching*

#### *Manuscripts in Preparation*

3. **Kim, W. J.** High School Students' Examinations of Socioscientific Knowledge Claims' Trustworthiness: Analysis with the Grasp of Evidence Framework, for submission to Science Education
2. **Kim, W. J.** Teachers' Reflective Sensemaking of Students' Rightful Presence in School Science Learning Spaces, for submission to Journal of Teacher Education
1. **Kim, W. J. & Archuleta, L.** Co-creating the Discourse of Environmental Consciousness toward Justice across Interconnected Learning Spaces: In the Framework of Rightful Presence, for submission to Teaching and Teacher Education

## Book Chapters & Proceedings

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5. **Kim, W. J.** (2023, June) *Teachers' Reflective Sensemaking of Students' Rightful Presence in Science Learning Spaces*. Proceedings of International Society of Learning Sciences, Montreal, Canada
4. **Kim, W. J.** (2022, June) *What does 'Computer Science Education for All' look like in a Korean middle school: an Ethnographic Case study of an Informatics Teacher's Local Contentious Practice*. Proceedings of International Conference of the Learning Sciences, Virtual.
3. **Kim, W. J., & Alonzo, A. C.** (2021). Undergraduates' Grasp of Evidence for Evaluating Scientific Knowledge Claims Associated with Socio-scientific Issues. In *Engaging with Contemporary Challenges through Science Education Research* (pp. 149-160). Springer, Cham. [https://doi.org/10.1007/978-3-030-74490-8\\_12](https://doi.org/10.1007/978-3-030-74490-8_12)
2. Calabrese Barton, A., Balzer, M., **Kim, W. J.**, McPherson, N., Brien, S., Greenberg, D., & Archer, L. (2021). Spatial justice theory: Working toward justice: Reclaiming our science center. In *Theorizing Equity in the Museum* (pp. 1-18). Routledge. <https://doi.org/10.4324/9780367823191>
1. **Kim, W. J.** (2020, July). *Critical autoethnography: A Korean Science Teacher's Consciousness Analysis*. Proceedings of the International Conference of the Learning Sciences, Virtual.

## Peer-reviewed Presentations

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- Kim, W. J.** (2024, June). *Shifting Perceptions of AI: An Integrated Learning Program in the Middle School Setting*. Annual Meeting of International Association for Development of the Information Society. Budapest, Hungary, presented in person
- Kim, W. J.** (2024, April) *Can Socioscientific Reasoning Still Help Navigate Issues where Experts Disagree about Risk?* Annual Meeting of National Association for Research in Science Teaching, Virtual and in person, Denver, CO, US, presented in the virtual session
- Kim, W. J.** (2024, April) *Science Teachers' Sensemaking of Artificial Intelligence Integrated Science Teaching*. Annual Meeting of National Association for Research in Science Teaching, Virtual and in person, Denver, CO, US, presented in the virtual session
- Kim, W. J., & Stoehr, K.** (2023, April) *Research-Practice Partnership with Beginning STEM Teachers and Their Students to Address Local Environmental Issues at East San Jose*. Climate & Environmental Justice Conference, Santa Clara, Santa Clara University, US
- Kim, W. J., & Archuleta, L.** (2023, April) *Co-creating the Discourse of Environmental Consciousness toward Justice in Science Classrooms: A Reflective Case Study of a Teacher Educator and a Teacher as Learners*. Annual Meeting of National Association for Research in Science Teaching, Chicago, IL, US
- Kim, W. J.** (2023, April) *'At first they felt barely relevant': Three Korean Science Teachers' Reflective Sensemaking of Justice-oriented Science Teaching*. Annual Meeting of the American Educational Research Association, Accepted not Presented

- Kim, W. J.** (2023, April) *Science Teachers' Understanding of Students' Rightful Presence in Science Classrooms and Supportive Pedagogical Practices*, Annual Meeting of the American Educational Research Association, Accepted not Presented
- Kim, W. J.** & Calabrese Barton, A. (2022, April). *Making space in support of youths' rightful presence in informal STEM learning space*. Annual Meeting of the American Educational Research Association, San Diego, CA, US
- Kim, W. J.** (2022, January). *AI-integrated science instruction: vitalizing epistemic discourse in classroom*. Annual Conference of Korean Association of Science Education, Virtual
- Kim, W. J.** (2022, January). *A case study of four Korean science teachers' learning to integrate Artificial Intelligence into science classes*. Annual Conference of Korean Association of Science Education, Virtual
- Kim, W. J.** (2021, April). *Enacting epistemic agency in transnational space: YouTube comments on face masks during COVID-19 pandemic*. Annual Meeting of the American Educational Research Association.
- Kim, W. J.** (2021, April). *What the pandemic revealed: Multiple consciousness of becoming a Korean graduate in the US*. AERA Annual Meeting.
- Calabrese Barton, A., Balzer, M., **Kim, W. J.**, McPherson, N., Brien, S., Greenberg, D., & Archer, L. (2021, April). *Working towards social spatial justice: Reclaiming our science center*. AERA Annual Meeting.
- Calabrese Barton, A., **Kim, W. J.**, & Tan, E. (2021, April). *Co-designing for rightful presence in informal science learning environments*. AERA Annual Meeting.
- Kim, W. J.** (2021, January) Three Korean Science Teachers' Collaborative Autoethnographic Analysis of Classroom Teaching in the Framework of Equity. Annual Conference of Korean Association of Science Education, Virtual
- Kim, W. J.** (2021, January). *Exploratory content review. Whiteness in Korean middle school science textbooks*. Annual meeting of Korean Association for Multicultural Education. Virtual due to COVID-19, Seoul, South Korea.
- Calabrese Barton, A., **Kim, W. J.**, Balzer, M., & Brien, S. (2020, July). *Reclaiming the science center: Working towards social spatial justice*. Paper presentation at the International Conference of the Learning Sciences. Virtual due to COVID-19, Nashville, TN.
- Kim, W. J.** & Louis, L. (2020, April). *Whiteness in nonwhite: Multiple consciousness analysis of autoethnographic narratives from Korean classrooms*. AERA Annual Meeting San Francisco, CA (Conference Canceled due to COVID-19).
- Calabrese Barton, A., **Kim, W. J.**, Brien, S. C., Balzar, M., Godec, S., Archer, L. & Dawson, E. (2020, April). *(Re)Claiming space: Disrupting and reimagining equity in informal science learning*. AERA Annual Meeting San Francisco, CA (Conference Canceled due to COVID).
- Kim, W. J.**, & Alonzo, A. (2020, March). *Undergraduates' grounded critique of knowledge claims in socioscientific decision making*. Conference of National Association for Research in Science Teaching Conference, Portland, OR (Conference Canceled due to COVID-19).



- Kim, W. J.** (2019, October). *Critical autoethnographic narrative analysis of multiple consciousness in Korean classrooms*. Presented in Midwest Conference of Asian Affairs, East Lansing, MI.
- Kim, W. J.,** Calabrese Barton, A., Blazer, M., & Archer, L. (2019, October). *Equitable and consequential pedagogies for STEM agentic lives: Practices for disrupting and restructuring authority from youth-initiated moments*. Presented at the annual meeting of Inclusive Science Community Symposium, Kingston, RI.
- Kim, W. J.,** & Brien, S. (2019, September). *Equitable teaching practices from Youth-initiated moments of sharing authority*. Presented at the annual meeting of Learning Sciences Graduate Student Conference, Evanston, Illinois, United States.
- Kim, W. J.** (2019, September). *Undergraduates' epistemic critique of socioscientific claims*. Presented at the annual meeting of Learning Sciences Graduate Student Conference, Evanston, IL.
- Kim, W. J.,** Calabrese Barton, A., Brien, S., & Roby, R. (2019, August). *High leverage practices in support of equitable and transformative pathways towards STEM-agentic lives*. Presented at the biannual meeting of European Science Education Research Association, Bologna, Italy.
- Kim, W. J.,** Alonzo, W. (2019, August). *Undergraduates' epistemic caution for evaluating socioscientific knowledge claims*. Presented at the biannual meeting of European Science Education Research Association, Bologna, Italy.
- Kim, W. J.,** Calabrese Barton, A., & Brien, S. (2019, May). *Practices for equitable and transformative pathways towards STEM-agentic lives for youth from underrepresented communities*. Presented at CREATE for STEM, East Lansing, MI.
- Kim, W. J.,** & Calabrese Barton, A. (2019, April). *Teacher the change agent for consequential learning: One Korean teacher's autoethnography on dance-with-science project*. Presented at the annual meeting of Comparative and International Education Studies, SF, CA.
- Kim, W. J.,** Calabrese Barton, A., Balzer, M., Brien, S., & Archer, L. (2019, April). *High-leverage practices in informal science education toward equitable and transformative pathways in STEM*. Presented at the annual meeting of AERA, Toronto, ON, Canada.
- Balzer, M., **Kim, W. J.,** Greenberg, D., Calabrese-Barton, A., & Archer, L. (2018, September). *Partnering for "Equitable STEM pathways" for youth from underrepresented communities: Findings from a US/ UK partnership*. Presented at the annual meeting of Association of Science and Technology Center, Harford, United States.
- Alonzo, A. C., & **Kim, W. J.** (2017, August). *Exploring practices of personal and civic engagement with science*. Presented at the biannual meeting of European Science Education Research Association, Dublin, Ireland.
- Kim, W. J.,** & Kwon, Y. (2013, January). *Analysis of task commitment types of science learning in high school students' biology classification*. Presented at the annual meeting of Korea Association of Biology Education Conference.
- Kim, W. J.,** & Kwon, Y. (2012, November). *Where does a teacher look at: The comparative analysis of experienced and beginner teachers' eye movement in the science class*. Presented in East Asian Association for Science Education Conference.

**Kim, W. J., & Kwon, Y.** (2012, February). *Where does a teacher look at: Comparative analysis of teachers' eye movement in the science classrooms*. Presented at the annual meeting of American Association for the Advancement of Science, Vancouver, BC, Canada.

**Kim, W. J., & Kwon, Y.** (2011, August). *Analysis of brain activation network in question generation regarding biological phenomenon: An fMRI study*. Presented at the annual meeting of Federation of European Neuroscience Societies, Barcelona, Spain.

## **Commissioned White Papers**

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**Kim, W. J.** (2014). *Busan science education initiative project report: Inquiry and creativity enhancement via STEAM based free inquiry activities*. Education Office of Busan Metropolitan City.

**Kim, W. J., Yoon, I., Park, K., Seo, B., & Shin, H.** (2014). *STEAM education research report: STEAM-based teaching program development and application tailored to Free Semester Policy*. Korea Foundation for the Advancement of Science and Creativity.

Yoon, S., Lee, N., Choi, Y., **Kim, W. J.**, Kwon, S., Heo, T., & Ahn, Y. (2014). *Busan education policy research report: Evaluation model analysis and development for the free semester system*. Busan Education Research and Information Institute.

**Kim, W. J.** (2014). *Joy of STEAM inquiry: Science initiative E+STEAM camp report*. Busan Science Education.

## **TEACHING & RELATED EXPERIENCES**

### **Post-Secondary Teaching**

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#### *Masters' Courses*

2021-present      *Instructor*  
Santa Clara University  
for Courses at Master of Arts in Teaching and Teacher Credential (MATTC),

- Methods Courses
  - Secondary Science Methods I (EDUC 288A)
  - Secondary Science Methods II (EDUC 288B)
  - Elementary Science Methods (EDUC 264)
- Foundational Courses
  - Developing Positive Classroom Cultures (EDUC 258/283)
  - Social Foundations of Education (EDUC 252/277)
  - Assessing Secondary Students' Learning (EDUC 296)

#### *Field Supervisor*

Santa Clara University  
for Courses at Master of Arts in Teaching and Teacher Credential (MATTC)

- Practicum in Secondary Schools (EDUC 230 A, B, C, and D)

## *Undergraduate Courses*

- 2021                    *Instructor*  
Michigan State University  
TE 409 Science Teaching Practice for Secondary Science Minor,
- 2020                    *Co-Instructor*  
Michigan State University  
TE 407 Learning to Teach Science in Diverse Contexts,

## **K-12 Teaching**

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### *Informal secondary STEM education*

- 2020                    *Adult Facilitator for Youth STEM-based Action Council Program*  
Boys and Girls Club Makerspace, Lansing, MI
- 2019                    *STEM Camp Co-Designer*  
Boys and Girls Club Makerspace, Lansing, MI.
- 2018-2019            *Assistant Educator*  
Boys and Girls Club Makerspace, Lansing, MI.
- 2017-2019            *Assistant Educator*  
Impression 5 Science Center, Lansing, MI.
- 2013-2014            *Program Director*  
Busan Science Education Initiative, Busan, Korea.

### *Public school secondary education*

- 2015-2016            *Secondary School Teacher*  
Garak Middle School, Busan, Korea.  
Subjects taught: General Science, Technology, Computer Science
- 2009-2015            *Secondary School Teacher*  
Yongsu Middle School, Busan, Korea.  
Subjects taught: General Science, Technology
- 2004-2009            *Secondary School Teacher*  
Dukpo Middle School, Busan, Korea.  
Subjects taught: General Science

## **Teacher Certification**

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- 2008                    **Clear Credential:** Secondary Biology Teacher  
Ministry of Education, Korea
- 2004                    **Preliminary Credential:** Secondary Biology and General Science Teacher  
Ministry of Education, Korea

## SERVICE & RELATED EXPERIENCES

### Service (Internal)

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- 2023-Present      **Department Assessment Coordinator**, Department of Education,  
Santa Clara University
- 2022-Present      **Education and Counseling Psychology Junior Faculty Research  
Group Lead**, Department of Education, Santa Clara University
- 2022-2023        **Faculty Senate Council**, Santa Clara University

### Service (External)

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#### *Journal Article Reviewer*

- 2021-present      Journal of Research in Science Teaching (2022, 2023)  
Science Education (2022, 2023)  
Multicultural Education Review (2024)  
Asia Pacific Science Education (2021-present)  
International Journal of STEM Education (2024)

#### *Committee*

- 2022-present      Social Media Committee,  
National Association for Research in Science Teaching

#### *Conference Discussant*

- 2024                International Association for Development of Information Society  
2023                Korean Association for Multicultural Education  
2020                Korean Association for Multicultural Education

#### *Conference Proposal Review*

- 2024                National Association for Research in Science Teaching 2024  
2023                International Conference of Learning Sciences 2023  
2022                American Educational Research Association 2023  
                         National Association for Research in Science Teaching 2023  
2021                National Association for Research in Science Teaching 2022  
2020                National Association for Research in Science Teaching 2021  
2019                National Association for Research in Science Teaching 2020

#### *Conference Assistant*

- 2018                Ambitious Science Teaching Conference assistant (June).  
Michigan State University

#### *Speaker and Panelist*

- 2024, May        *Invited Speaker*  
Topic: Grasp of Evidence for Socioscientific Issues  
Audience: 8 11<sup>th</sup> grade students at Academy of Science and Arts (IASA),

- Incheon, Korea, virtual
- 2024, March *Invited Panelist*  
 Topic: Towards Inclusive Teaching: Addressing the “Hidden Curriculum” and Implementing Evidence-Based Strategies  
 Audience: SCU faculty attendant at Faculty Development Seminar, in person
- 2023, November *Invited Speaker*  
 Topic: Centering Environmental and Climate Justice Issues for Participatory STEM education that matters  
 Audience: 12 science teachers selected as Outstanding Teachers of the Year, Incheon Education Office, Korea, in person
- 2023, October *Invited Speaker*  
 Topic: What does it mean by Authority Sharing in Science Classrooms?  
 Audience: 13 undergraduates in science methods course, Michigan State University, virtual
- 2023, September *Invited Speaker*  
 Topic: Centering Environmental and Climate Justice Issues for Participatory STEM education that matters  
 Audience: 12 science teachers selected as Outstanding Teachers of the Year, Incheon Education Office, Korea, in person
- 2022, July *Invited Speaker*  
 Topic: Rightful Presence of Teachers and Students in Korean Elementary Classrooms  
 Audience: 12 elementary teachers at the graduate course titled Diversity and Multicultural Education, At Korea National University of Education, virtual
- 2022, April *Invited Panelist*  
 Topic: Mentoring Session for Graduate Students  
 Audience: Graduate Members of Korean Scholars for American Educational Research Association, virtual
- 2021, March *Invited Panelist*  
 Topic: Publishing & Fellowship Advice for First-Year CITE Students  
 Audience: First-Year CITE Students at Michigan State University, virtual

***National and Regional Educational Project Lead Teacher***

- 2015 Mobile application development for virtual science experiments
- 2015 STEAM workbook development for the Free Semester
- 2015 Assessment item development for gifted student selection
- 2014 Assessment system analysis for the Free Semester
- 2009-2016 Biology activity development for STEAM classrooms

***Teacher Mentor***

- 2022 Teacher training lecturer for classroom argumentation-based inquiry
- 2016 Mentor for beginning science teachers
- 2015-2016 Consultant for Education Broadcast System children science program

### ***Student Inquiry Group Mentoring***

2016	Youth Science Exhibit: Follow Your Sense
2015	Youth STEAM Camp with STEAM major university students
2015	Youth Inquiry Fair: Environment-Friendly Bio-Plastic Products
2013	Youth Inquiry Fair: Can We Classify Plants by Stomata Traits?
2011-2012	Afterschool Program for Design and Invention Inspired by Nature
2010	Youth Group for Environmental Inquiry: Save the Swamp, Save the River
2008	Youth Inquiry Fair: Does Cypress Oil Have Antibiotic Effects?
2008	Youth Science Exhibit: Show Me the Energy
2006	Youth Science Exhibit: Show Me the Sound

### ***Membership in Professional Societies***

International Society of the Learning Sciences  
American Education Research Association  
National Association for Research in Science Teaching  
Korea Association for Science Education