

Won Jung Kim

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Education

- August, 2021 **Ph.D. Michigan State University**
Curriculum, Instruction, and Teacher Education

Dissertation: Making Visible and Amplifying Youth-initiated Moments for Rightful Presence in Informal STEM Learning Spaces
- February, 2013 **M. Ed. Korea National University of Education**
Biology Education
- February, 2004 **B.A., Korea National University of Education**
Biology Education
Minor in General Science Education

Publications

Peer Reviewed Journal Articles

- 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>
- 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>
- Kim, W.** (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>
- Calabrese Barton, A., **Kim, W.**, & 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>
- Kim, W.** (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>
- Kim, W.**, 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.

- Kim, W.**, Byeon, J., & Kwon, Y. (2013). Development of inventory to classify task commitment type in science learning and its application to classify students' types. *Journal of Korea Association of Science Education*, 33(3), 679-693.
- Kim, W.**, 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.
- Park, H., Lee, I., Byeon, J., **Kim, W.**, & 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.
- Kwon, Y., **Kim, W.**, Lee, H., Byeon, J., & Lee, I. (2011). Analysis of biology teachers' system thinking on ecosystem. *Journal of Korea Biology Education*, 39(4), 529-543.

Journal Articles Under Review

- Kim, W.**, Calabrese Barton, A., Brien, S., & Archer, L. Youth-initiated moments of seeking justice: Making visible youth imaginaries for STEM learning. *Cognition and Instruction*.
- Kim, W.**, Calabrese Barton, A., Archer, L. Making Space for Youth Rightful Presence in Informal STEM Learning. *Journal of Research in Science Teaching*.
- Kim, W.** Critical Perspectives of School Science: A Science Teacher's Autoethnographic Examination of Science Classroom Discourse and Practices. *Journal of Science Teacher Education*.
- Kim, W.** 'At first they felt barely relevant': Three Korean Science Teachers' Reflective Sensemaking of Justice-oriented Science Teaching. *International Journal of Science Education*
- Greenberg, D., Calabrese Barton, A., Brien, S., **Kim, W.**, & Archer, L. Designing and Leading Justice-Centered Informal STEM Education: A Relational and Ethical Teaching Framework. *Science Education*

Book Chapter

- 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
- 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>

Research Reports

- Kim, W.** (2014). *Busan science education initiative project report: Inquiry faculty and creativity enhancement via STEAM based free inquiry activities*. Education Office of Busan Metropolitan City.
- Kim, W.,** Yoon, I., Park, K., Seo, B., & Shin, H. (2014). *STEAM education research report: future competence reinforcement by STEAM-based teaching program development and application tailored to free semester*. Korea Foundation for the Advancement of Science and Creativity.
- Yoon, S., Lee, N., Choi, Y., **Kim, W.,** 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.** (2014). *Joy of STEAM inquiry: Science initiative E+STEAM camp report*. Busan Science Education.
- Kim, W.,** & Kwon, Y. (2011). Golgi's and Cajal's scientific inquiry processes on the Neuron. *Brain & Learning*, 1(2), 12-27.

Peer-reviewed Presentations

- Kim, W.,** & Stoehr, K. (2023, April) *Research-Practice Partnership with Beginning STEM Teachers and Their Students*. Climate & Environmental Justice Conference, Santa Clara, Santa Clara University, US
- Kim, W.,** & 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.** (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.** (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.** (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*. International Conference of the Learning Sciences.
- Kim, W** & 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.** (2022, January). *AI-integrated science instruction: vitalizing epistemic discourse in classroom*. Annual Conference of Korean Association of Science Education, Virtual
- Kim, W.** (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.** (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.** (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.**, 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.**, & Tan, E. (2021, April). *Co-designing for rightful presence in informal science learning environments*. AERA Annual Meeting.
- Kim, W.** (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.** (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.
- Kim, W.** (2020, July). *Critical autoethnography: A Korean science teacher's consciousness analysis*. Paper presentation at the International Conference of the Learning Sciences. Virtual due to COVID-19, Nashville, TN.
- Calabrese Barton, A., **Kim, W.**, 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.** & 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.**, 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-19).
- Kim, W.**, & 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.** (2019, October). *Critical autoethnographic narrative analysis of multiple consciousness in Korean classrooms*. Presented in Midwest Conference of Asian Affairs, East Lansing, MI.
- Kim, W.**, 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.**, & 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.** (2019, September). *Undergraduates' epistemic critique of socioscientific claims*. Presented at the annual meeting of Learning Sciences Graduate Student Conference, Evanston, IL.
- Kim, W.**, Calabrese Barton, A., Brien, S., & Roby, ReAnna. (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.**, 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.**, 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 mini-conference, East Lansing, MI.
- Kim, W.**, & Calabrese Barton, A. (2019, April). *Teacher the change agent for consequential learning: One Korean teacher's autoethnography on the dance-with-science project*. Presented at the annual meeting of Comparative and International Education Studies, San Francisco, CA.
- Kim, W.**, 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.**, 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.** (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.**, & 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., & 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., & 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., & 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.

Awards, Grants & Scholarships/Fellowships

2023	Emerging Scholar Award, International Society of Learning Sciences.
2023	Science Communication Identities Project Fellow, Metcalf Institute and Knight Center for Environmental Journalism.
2022	Outstanding Dissertation Research Award, National Association of Research in Science Teaching
2022	University Teaching Grant, Santa Clara University
2022	Environmental Justice Initiative Research Grant, Santa Clara University
2020	Dissertation Completion Fellowship, MSU
2020	Anderson-Schwille Endowed Fellowship in International Education. MSU
2020	Teacher Education Endowed Fellowship, MSU
2020	Korean Association for Multicultural Education Presidential Research Travel Award
2019	Research + Practice Fellow, Research + Practice Collaboratory and Metcalf Institute
2019	Delia Koo student award, Asian Studies Center, MSU
2019	Summer Research Fellowship, College of Education, MSU
2019	Research Practicum/ Dissertation Fellowship, College of Education, MSU
2017	Summer Research Development Fellowship, College of Education, MSU
2015	National Classroom Teaching Competition (1 st), in secondary school science, Ministry of Education, Korea.
2015	Teacher of Busan Youth Inquiry Fair: <i>Can We Classify Plants by Stomata Traits?</i> , Ministry of Education, Korea.
2014	Busan Education Policy Research Award, Korea Department of Education
2011-2012	Graduate Scholarship, Korea National University of Education
2010	Teacher of Busan Youth Inquiry Fair: <i>Does Cypress Oil Have Antibiotic Effects?</i> , Ministry of Education, Korea.

Research Assistantship

- 2017-2021 **Science Learning + Partnerships: Partnering for Equitable STEM Pathways**
Graduate Research Assistant
PI : Dr. Angela Calabrese Barton, University of Michigan
- 2016-2019 **Articulation and Assessment of Scientific-Style Critical Thinking**
Graduate Research Assistant
PI : Dr. Alicia Alonzo, Michigan State University

Teaching and related experiences

Teaching (Masters' Courses)

- 2021-present **Instructor**, Secondary Science Methods I (EDUC 288A), Santa Clara University
Instructor, Secondary Science Methods II (EDUC 288B), Santa Clara University
Instructor, Elementary Science Methods (EDUC 264), Santa Clara University
Instructor, Creating Positive Classroom Cultures (EDUC 258/283), Santa Clara University
- 2021-present **Field Supervisor** for Secondary Science Teacher Candidate, Santa Clara University

Teaching (Undergraduate Courses)

- 2021 **Instructor**, TE 409 Science Teaching Practice for the Secondary Science Minor, Michigan State University
- 2020 **Co-Instructor**, TE 407 Learning to Teach Science in Diverse Contexts, Michigan State University
- 2018-2019 **Shadower**, TE 802/804 Reflection and Inquiry in Science Teaching Practice, Michigan State University
- 2018 **Shadower**, TE 403 Teaching Science to Diverse Students, Michigan State University

Teaching (informal secondary STEM education)

- 2020 **Program Director/Instructor**, *Teenovators, Youth STEM-based Action Council in Boys and Girls Club Makerspace, Lansing, MI*
- 2019 **Camp Designer/Director**, *Boys and Girls Club Makerspace, Lansing,*

2018-2019 *MI.*
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.**

Teaching (public school secondary education)

2015-2016 **Science Teacher, Garak Middle School, Busan, Korea.**
 2009-2015 **Science Teacher, Yongsu Middle School, Busan, Korea.**
 2004-2009 **Science Teacher, Dukpo Middle School, Busan, Korea.**

Teacher Certification

2008 **Teacher’s Certificate (I)**
 Secondary Biology, Ministry of Education, Korea
 2004 **Teacher’s Certificate (II)**
 Secondary Biology and General Science, Ministry of Education, Korea

Other Professional Experiences

Journal Paper Reviewer

2022-present Journal of Research in Science Teaching
 Science Education
 Asia Pacific Science Education

Committee

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

Conference Discussion Chair

2020 Korean Association for Multicultural Education

Conference Proposal Review

2023 International Conference of Learning Sciences 2023 conference
 proposal reviewer
 2022 American Educational Research Association 2023 conference proposal
 reviewer
 National Association for Research in Science Teaching 2023
 conference proposal reviewer
 2021 National Association for Research in Science Teaching 2022
 conference proposal reviewer
 2020 National Association for Research in Science Teaching 2021

2019 conference proposal reviewer
National Association for Research in Science Teaching 2020
conference proposal reviewer

Conference Assistant

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

Speaker and Panel

2022, July Visiting Speaker Session: Rightful Presence of Teachers and Students in Korean Elementary Classrooms: Korea National University of Education, Kwangju (Course Title: Diversity and Multicultural Education).

2022, April Mentoring Session for Graduate Students. Korean Scholars for American Educational Research Association

2021, March Publishing & Fellowship Advice for First-Year CITE Students. Michigan State University

Practitioner Research

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 Mentoring

2016 Teacher training lecturer for classroom argumentation-based inquiry

2015-2016 Mentor for beginning science teachers

2011-2012 Consultant for Education Broadcast System children science program

Student Group Mentoring

2016 Busan Youth Inquiry Fair: Follow Your Sense

2015 Busan Youth STEAM Camp with STEAM major university students

2015 Busan Youth Inquiry Fair: Environment-Friendly Bio-Plastic Products

2015 Busan 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

2010 Busan Youth Inquiry Fair: Does Cypress Oil Have Antibiotic
Effects?
2009 Busan Invention Fair: See What You Hear

Membership in Professional Societies

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