

Wonyong Park

Southampton Education School, University of Southampton
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November 2025

ACADEMIC APPOINTMENTS

Southampton Education School, University of Southampton, UK

Associate Professor of Science Education 2024 – present

Lecturer in Science Education (2021 - 2024) 2021 – 2024

Department of Science Education, Ewha Womans University, South Korea

Visiting Professor 2025 – present

EDUCATION

University of Oxford, UK

DPhil in Science Education 2021

Seoul National University, South Korea

MSc in Science Education 2018

BSc in Physics Education 2016

BOOKS

Park, W. (under contract). *Disaster education for social justice: A STEM-centred approach*. Routledge.

Park, W., Summers, R., & Pleasants, J. (under contract). (Eds.). *Nature of science in science curriculum and teacher education: A global perspective*. Springer.

EDITED SPECIAL ISSUES

Park, W., & Guilfoyle, L. (in progress). (Eds.). Research-informed policy and practice in science education. Special issue of *Research in Science Education*.

Millar, V., **Park, W.**, & Dillon, J. (2025). (Eds). The science curriculum: Issues, tensions and future prospects. Special issue of *International Journal of Science Education*. (Volume 47, Issue 15–16)
<https://www.tandfonline.com/toc/tsed20/47/15-16>

Park, W., Grace, M., Hutton, C., & Knowles, S. G. (2025). (Eds.). Science education in an age of unnatural disasters. Special issue of *Science & Education*. (Volume 34, Issue 3)

<https://link.springer.com/journal/11191/volumes-and-issues/34-3>

Park, W., & Erduran, S. (2025) (Eds.). Argumentation and the problem of misinformation in science education. Topical collection of *Research in Science Education*.
<https://link.springer.com/collections/jfjeedgbd>

JOURNAL ARTICLES

Park, W., Erduran, S., & Hillier, J. (in press). Building connections to teach the nature of science: An experienced science teacher's formative assessment practices in a high school science classroom. *Journal of Research in Science Teaching*. <https://doi.org/10.1002/tea.70029>

Millar, V., **Park, W., & Dillon, J.** (2025). The science curriculum: Issues, tensions and future prospects. *International Journal of Science Education*, 47(15–16), 1965–1971.
<https://doi.org/10.1080/09500693.2025.2504644>

Townend, I., Baden, D., Baker, J., Buermann, J., Dawson, I., Dbouk, W., Dearing, J. A., Doncaster, C. P., Eigenbrod, F., Hellman, T., Hoyle, R. B., & Ianni, A., Kassem, H., Katsikopoulou, K., Kunc, M., Manfren, M., Marshall, A., **Park, W.**, Sengupta, D., & Wanick, V. (2025). Anticipating futures: Understanding the fundamental importance of narratives through an integrative interdisciplinary approach. *Futures*, 173, 103649. <https://doi.org/10.1016/j.futures.2025.103649>

Park, W. (2025). STEM education for transformative hazard literacy: from technological fixes to slow learning. *Journal of Hazard Literacy*, 1(1), e3. <https://doi.org/10.63737/jhl.25.0014>

Park, W., Grace, M., Hutton, C. W., & Knowles, S. G. (2025). Science education in an age of unnatural disasters: An introduction to the special issue. *Science & Education*, 34(3), 957–967.
<https://doi.org/10.1007/s11191-025-00652-1>

Park, W., Shaby, N., & Newman, R. (2025). "We often forget it was a disaster": Cross-curricular teacher collaboration to develop a curriculum unit on the Titanic disaster. *Science & Education*, 34(3), 1087–1114.
<https://doi.org/10.1007/s11191-024-00540-0>

Park, W., Lim, I., & Song, J. (2024). Exploring the intersection of disasters and science education with preservice science teachers through a disaster case study. *Cultural Studies of Science Education*, 19(4), 593–622. <https://doi.org/10.1007/s11422-024-10225-3>

Brock, R., & **Park, W.** (2024). Distinguishing nature of science beliefs, knowledge and understandings: Towards clarity and coherence in educational goals related to nature of science. *Science & Education*, 33(3), 495–516. <https://doi.org/10.1007/s11191-022-00368-6>

Park, W., Cullinane, A., Gandolfi, H., Alameh, S., & Mesci, G. (2024). Innovations and future directions in nature of science research: Reflections from early career academics. *Research in Science Education*, 54(1), 27–48. <https://doi.org/10.1007/s11165-023-10102-z>

Ha, H., **Park, W., & Song, J.** (2023). Preservice elementary teachers' socioscientific reasoning during a decision-making activity in the context of COVID-19. *Science & Education*, 32(6), 1869–1886.

<https://doi.org/10.1007/s11191-022-00359-7>

Park, W., Lee, H., Ko, Y., & Lee, H. (2023). "Safety" and "integration": Examining the introduction of disaster into the science curriculum in South Korea. *Journal of Curriculum Studies*, 55(5), 580–597.
<https://doi.org/10.1080/00220272.2023.2239887>

Park, W., Erduran, S., Song, J., & Kim, M. (2023). "It's a lesson with no correct answer": Design issues in preservice teachers' collaborative lesson planning using history of science. *International Journal of Science Education*, 45(3), 181-203. <https://doi.org/10.1080/09500693.2022.2154132>

Park, W. & Brock, R. (2023). Is there a limit to resemblances? Revisiting the science-pseudoscience problem from a family resemblance perspective. *Science & Education*, 32(5), 1265-1286.
<https://doi.org/10.1007/s11191-022-00394-4>

Cho, H-J., Jo, J.-H., Choi, N., Choi, J., & **Park, W.** (2022). Environmental themes and ecosystem services in picture books about forests for sustainability education. *Journal of Forest Research*, 27(6), 419–428.
<https://doi.org/10.1080/09500693.2022.2154132>

Park, W., & Cho, H. (2022). The interaction of history and STEM learning goals in teacher-developed curriculum materials: Opportunities and challenges for STEAM education. *Asia Pacific Education Review*, 23(3), 457–474. <https://doi.org/10.1007/s12564-022-09741-0>

Park, W., Erduran, S., & Guilfoyle, L. (2022). Secondary teachers' instructional practices on argumentation in the context of science and religious education. *International Journal of Science Education*, 44(8), 1251–1276.
<https://doi.org/10.1080/09500693.2022.2074565>

Erduran, S., Guilfoyle, L., & **Park, W.** (2022). Science and religious education teachers' perceptions of argumentation and its teaching. *Research in Science Education*, 52(2), 655–673.
<https://doi.org/10.1007/s11165-020-09966-2>

Park, W., & Song, J. (2022). Looking back at "our science" and "our history": Exploring Korean preservice teachers' encounters with East Asian history of science. *Cultural Studies of Science Education*, 17(2), 355–381. <https://doi.org/10.1007/s11422-021-10060-w>

Park, W., Kim, D., & Kang, D. Y. (2021). Research trends in science and mathematics education in South Korea 2014–2018: A cross-disciplinary analysis of publications in selected local journals. *Asia-Pacific Science Education*, 7, 280–308. <https://doi.org/10.1163/23641177-bja10029>

Guilfoyle, L., Erduran, S., & **Park, W.** (2021). Science and religious education teachers' views of the comparison of argumentation in science and religion. *Journal of Beliefs and Values*, 42(2), 190–204.
<https://doi.org/10.1080/13617672.2020.1805925>

Park, W., Wu, J.-Y., & Erduran, S. (2020). The nature of STEM disciplines in the science education standards documents from the USA, Korea and Taiwan: Focusing on disciplinary aims, values and practices. *Science & Education*, 29(4), 899–927. <https://doi.org/10.1007/s11191-020-00139-1>

Park, W. (2020). Beyond the "two cultures" in the teaching of disaster: or how disaster education and science education could benefit each other. *Educational Philosophy and Theory*, 52(13), 1434–1448.
<https://doi.org/10.1080/00131857.2020.1751126>

- Park, W.**, Yang, S., & Song, J. (2020). Eliciting students' understanding of nature of science with text-based tasks: Insights from new Korean high school textbooks. *International Journal of Science Education*, 42(3), 426–450. <https://doi.org/10.1080/09500693.2020.1714094>
- Park, W.**, Yang, S., & Song, J. (2019). When modern physics meets nature of science: The representation of nature of science in general relativity in new Korean physics textbooks. *Science & Education*, 28(9–10), 1055–1083. <https://doi.org/10.1007/s11191-019-00075-9>
- Erduran, S., Guilfoyle, L., **Park, W.**, Chan, J., & Fancourt, N. (2019). Argumentation and interdisciplinarity: Reflections from the Oxford Argumentation in Religion and Science Project. *Disciplinary and Interdisciplinary Science Education Research*, 1, 8. <https://doi.org/10.1186/s43031-019-0006-9>
- Park, W.**, & Song, J. (2018). Goethe's conception of "experiment as mediator" and implications for practical work in school science. *Science & Education*, 27(1–2), 39–61. <https://doi.org/10.1007/s11191-018-9965-z>

BOOK CHAPTERS

- Park, W.**, Chun, J., & Ji, H. (2025). Why did the Fukushima nuclear accident happen, and how did it affect people?. In D. Steele & A. K. Mercier (Eds.), *Justice-oriented science teaching and learning: Anchoring phenomena in secondary classrooms* (pp. 397–410). Springer. https://doi.org/10.1007/978-3-031-76297-0_21
- Skilling, K., & **Park, W.** (2024). STEM in a changing world: "Insider" and "outsider" perspectives. In L. English & T. Lehmann (Eds.), *Ways of thinking in STEM-based problem solving: Teaching and learning in a new era* (pp. 15–28). Routledge. <https://doi.org/10.4324/9781003404989-2>
- Erduran, S., Guilfoyle, L., & **Park, W.** (2024). Broadening STEM education through cross-curricular collaboration: The case of argumentation in science and religious education. In Y. Li, Z. Zeng & N. Song (Eds.), *Disciplinary and interdisciplinary education in STEM: Changes and innovations* (241–264). Springer. https://doi.org/10.1007/978-3-031-52924-5_12
- Erduran, S., & **Park, W.** (2023). A systemic approach to the integration of Big Science in science education. In P. Charitos, T. Arabatzis, H. Cliff, G. Dissertori, J. Forneris & J. Li-Ying (Eds.), *Big Science in the 21st century: Economic and social impacts*. IOP Publishing. <https://doi.org/10.1088/978-0-7503-3631-4ch42>
- Erduran, S., & **Park, W.** (2023). Teaching and learning about argumentation in physics education. In F. Tasar & P. Heron (Eds.), *International handbook of physics education research: Learning physics* (pp. 1–32). AIP Publishing. https://doi.org/10.1063/9780735425477_016
- Park, W.**, Wu, J.-Y., & Erduran, S. (2020). Investigating the epistemic nature of STEM: Analysis of curriculum documents from the USA using the Family Resemblance Approach. In Anderson, J., & Li, Y. (Eds.) *Integrated approaches to STEM education: An international perspective* (pp. 137–155). Springer. https://doi.org/10.1007/978-3-030-52229-2_8
- Yang, S., **Park, W.**, & Song, J. (2020). Representations of nature of science in new Korean science textbooks: The case of "scientific inquiry and experimentation". In A.-L. Tan., T. W. Teo, & Y. S. Ong (Eds.), *Science education in the 21st century: Re-searching issues that matters from different lenses* (pp. 19–35). Springer. https://doi.org/10.1007/978-981-15-5155-0_2

Park, W., & Song, J. (2019). Between realism and constructivism: A sketch of pluralism for science education. In E. Herring, K. Jones, K. Kipriyanov, & L. Sellers (Eds.), *The past, present and future of integrated history and philosophy of science* (pp. 228–247). Routledge. <https://doi.org/10.4324/9781351214827-14>

OPINIONS AND PRACTITIONER PIECES

Park, W., Russell, H., & Fancourt, N. (2025). Never again: Disaster memory and education for social justice after Grenfell. *Teaching Citizenship*, 61, 38-41. <https://www.wonyongpark.com/files/neveragain.pdf>

Newman, R., & **Park, W.** (2025). Creating opportunities for learning across subjects through the Titanic disaster. *BERA Blog*. <https://www.bera.ac.uk/blog/creating-opportunities-for-learning-across-subjects-through-the-titanic-disaster>

Park, W., Miani, L., & Levrini, O. (2024). Disasters in the classroom: Lessons on talking to students about extreme climate events. UNDRR PreventionWeb. <https://www.preventionweb.net/drr-community-voices/disasters-classroom-lessons-talking-students-about-extreme-climate-events>

Park, W. (2024). Remembering Titanic: Lessons from a cross-curricular professional development project with science and history teachers. *Education in Science*, 294, 22-23.
<https://www.ase.org.uk/resources/education-in-science/issue-294/remembering-titanic>

Park, W. (2023). Computing education in the UK. *Science Times*. (written in Korean)
<https://www.sciencetimes.co.kr/news/%ec%98%81%ea%b5%ad%ec%9d%98-%ec%bb%b4%ed%93%a8%ed%8c%85-%ea%b5%90%ec%9c%a1-1/>

Park, W., Lee, S., Lee, E., & Lee, J. (2023). How South Koreans remember tragedy through education. *BERA Blog*. <https://www.bera.ac.uk/blog/how-south-koreans-remember-tragedy-through-education>

Park, W. (2022). Learning from Grenfell and Sewol: Why science education can be crucial for disaster justice and resilience. *HPS&ST Newsletter*. <https://www.hpsst.com/opinion.html>

Park, W. (2022). K-Science Education: Korean science education from an international perspective. *Journal of Seoul Science Education* (August 2022 Issue) (written in Korean). http://webzine-ssp.kr/education_issue/54

Park, W. (2020). Preparing school science for the next disaster. *Teach311+COVID19 Collective Blog*.
<https://www.teach311.org/2020/06/25/wonyong-park/>

TECHNICAL REPORTS

Park, W., Downey, C., Hughes, C., Russell, H., Cutler, M., & Ladbrook, L. (2025). Making research count in science education policy. University of Southampton & Association for Science Education.
<https://doi.org/10.5258/SOTON/P1232>

Park, W., Fancourt, N., Habibi, A., & Wahabi, H. (2025). *Teaching about Grenfell: Recommendations from the community*. <https://doi.org/10.5258/SOTON/P1214>

Park, W., Byrne, I., Scraton, P., Lee, J., Lee, E., Wahabi, H., & Calamelli, E., (2024). *Education and memorialisation for disaster justice: Lessons from Grenfell, Hillsborough and Sewol*. University of Southampton. <https://doi.org/10.5258/SOTON/PP0070>

MANUSCRIPTS IN REVIEW

Mainwaring, L., & **Park, W.** (in review). Between learning and solidarity: Medical students' learning and identity work in times of industrial action. (Submitted)

Park, W. (in review). "Be better than you need to be": A-level Physics students' rants, resilience and peer pedagogy on TikTok. (Submitted)

Park, W., & Ha, H. (in review). Testing times: A structure/agency perspective on becoming a science teacher in a competitive, exam-based teacher selection system. (Submitted).

Park, W., Fancourt, N., Habibi, A., & Wahabi, H. (in review). Beyond remembrance: A community-engaged framework for education for disaster justice after the Grenfell Tower fire. (Submitted).

MANUSCRIPTS IN PREPARATION

Park, W., & Brock, R. (in preparation). Nature of science in the age of knowledge-rich curriculum and centralised teacher education in England. (book chapter)

Park, W. (in preparation). Contested numbers, neutralised evidence: Epistemic friction in parliamentary debates on AI-enhanced digital textbooks in South Korea.

Park, W., & Hong, S. (in preparation). Educating an industrial city: The establishment of STEM education in Ulsan, South Korea, 1962-1981.

Park, W., Hillier, J., & Erduran, S. (in preparation). "It's not fair to assess that": Classroom assessment of the nature of science in a competitive education system.

Park, W., & Avraamidou, L. (in preparation). Recognition as an equal or superior being? Reinterpreting science identity through Rousseau's theory of self-love.

Park, W., & Kim, E. (in preparation). From pedagogical logic to risk management: Teacher agency and defensive practice in high-stakes physics education.

FELLOWSHIPS

(Declined) Azrieli International Postdoctoral Fellowship
2021-2024

₪564,000 (~\$146,745)
Azrieli Foundation

Departmental Studentship
2018-2021

£45,000 (~\$56,151)
Department of Education, University of Oxford

Study-Abroad Doctoral Fellowship	\$120,000
2018-2021	Ilju Academic & Cultural Foundation

EXTERNALLY FUNDED GRANTS & CONTRACTS

- 9/2024 - 8/2026 **Making research matter: Towards evidence-informed science education practice in the UK**
Funder: Economic and Social Research Council (Impact Acceleration Account, University of Southampton Internal Allocation)
Value: £14,000 (including joint funding from King's College London [£3,000])
Role: Principal Investigator (Co-I: Chris Brown, Carys Hughes & Marianne Cutler; RA: Carole Kenrick; Partners: Association for Science Education)
- 2/2025 - 1/2026 **Small schools, big changes: Exploring STEM participation and aspiration in ultra-low-fertility South Korea**
Funder: Academy of Korean Studies
Value: \$9,000
Role: Principal Investigator
- 9/2024 - 8/2025 **Advancing disaster justice through teacher professional development with the Grenfell community**
Funder: Economic and Social Research Council (Impact Acceleration Account, University of Southampton Internal Allocation)
Value: £20,947.11 (including joint funding from the University of Oxford [£3,000] and the Grenfell Foundation [£3,000])
Role: Principal Investigator (Co-I: John Schulz & Nigel Fancourt; RA: Harry Russell; Partners: The Grenfell Foundation, Grenfell United, Grenfell Tower Memorial Commission)
- 1/2024 - 7/2024 **The Grenfell Curriculum: Developing principles for disaster justice education through community-based participatory research**
Funder: Research England
Value: £30,000
Role: Principal Investigator (Co-I: Nigel Fancourt)
- 9/2023 - 8/2024 **RAPID: Co-developing a community-based science education curriculum framework for disaster justice and resilience: A response to the 2022 Buffalo Blizzard**
Funder: National Science Foundation (Award Number: 2326811)
Value: \$100,000
Role: Co-Principal Investigator (PI: Noemi Waight)

2/2022 - 12/2023	TeachDisasters: Exploring directions for post-pandemic disaster education through interdisciplinary collaboration between the UK and South Korea Funder: Economic and Social Research Council (Award Number: ES/W010917/1) Value: £49,921 Role: Principal Investigator (Co-Is: Marcus Grace, Andri Christodoulou, Craig Hutton, Buhm Soon Park, Chihyung Jeon, Scott Gabriel Knowles, Yeonsil Kang, Hyunju Lee, Yeonjoo Ko, Hyunok Lee)
10/2022 - 2/2023	A review of existing STEM policies and strategies in South-East Europe and the part of the Mediterranean countries (14 countries) in the context of scaling up the implementation of SDG 4, SDG 5 and SDG 9 Funder: UNESCO Regional Bureau for Science and Culture in Europe Value: €8,000 Role: Lead Individual Specialist (Team Members: Megumi Watanabe, Fang Jing, Laura Branchetti, Jingwen Song)

INTERNAL GRANTS

12/2024 - 7/2025	Bridging research and advocacy to improve science education Funder: University of Southampton Faculty of Social Science (Higher Education Innovation Fund) Value: £2,075 Role: Principal Investigator (Co-I: Carys Hughes, Chris Downey)
2/2024 - 7/2024	CPD course on the Grenfell Tower fire: A feasibility study Funder: University of Southampton Faculty of Social Science (Higher Education Innovation Fund) Value: £1,500 Role: Principal Investigator (Co-I: Nigel Fancourt; RA: Arzhia Habibi)
2/2022 - 7/2023	Remembering Titanic: Interdisciplinary place-based education about the Titanic disaster Funder: University of Southampton Faculty of Social Science (Higher Education Innovation Fund) Value: £5,500 (~\$6,863) Role: Principal Investigator (Co-Is: Neta Shaby, Rachele Newman; RA: Tilly Scotthorne)

AWARDS & RECOGNITION

Vice Chancellor's Award, Finalist (for Knowledge Exchange and Enterprise)	
2024	University of Southampton
SIG Best Presentation Award, Finalist (Social Justice Special Interest Group)	
2024	British Educational Research Association
Reviewer of Excellence Award, <i>Science & Education</i>	
2024	International History, Philosophy and Science Teaching Group
Early Career Researcher Award	
2023	Korean Association for Science Education
Reviewer of Excellence Award, <i>Science & Education</i>	
2022	International History, Philosophy and Science Teaching Group
ESERA Early Career Researcher Travel Grant	
2022	European Science Education Research Association
Staff Achievement Award	
2021	University of Southampton
Sandra K. Abell Fellowship for Doctoral Students	
2019	National Association for Research in Science Teaching (USA)
Outstanding Oral Presentation Award	
2019	2019 Spring Meeting of the Korean Physical Society
The Army Commendation Medal	
2011	The U.S. Department of the Army
Certificate of Appreciation	
2010	1 st Signal Brigade, The U.S. Army

TEACHING

(* As module lead) († In 2024/25)

Southampton Education School, University of Southampton (Undergraduate)

- | | |
|------------|---|
| EDUC103† | Contemporary Issues in Education (BSc Education) |
| EDUC1039*† | Education Across the World (BSc Education) |
| EDUC3042† | Exploring the Hidden Assumptions in Education (BSc Education) |

Southampton Education School, University of Southampton (Postgraduate)

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| EDUC6344 | Investigating Innovations in Learning and Teaching (MSc Army) |
| EDUC6347† | Learning and Teaching (MSc Education) |
| EDUC6457 | Globalisation and Education Policy (MSc Education) |

EDUC6448*† Collecting & Analysing Data in Education (MSc Education Online)

Department of Education, University of Oxford

Tutor, Master's in Learning and Teaching (Part 2), 2020–2021.

Dissertation supervisor, Master's in Learning and Teaching (Part 3), 2020–2021.

Seoul National University Extension College

Part-time instructor, "Design thinking and artificial intelligence" (a 5-week programme, delivered at four high schools in Seoul, Korea), 2018.

Other institutions

Part-time teacher (Physics and Science), Seoul High School, 2016.

SUPERVISION

University of Oxford (completed)

1 MSc Learning & Teaching

University of Southampton (completed and in progress, as of 2025/26)

4 PhD Education

Jingwen Song, "Teacher professional development for action-oriented climate change education through socioscientific inquiry-based learning: A case study of an early childhood setting in Shanghai, China"

Yizhang Sun, "Traditional Chinese culture for secondary science education"

Emily Bastable, "How can Knowledge Exchange and Enterprise be applied and integrated into Higher Education curricular?"

Callie Langley, "Composing resilience: The role of music in post-disaster recovery and community resilience in the UK"

28 MSc Education

2 MSc Education Online

9 BSc Education & Psychology

PhD examination

Progression reviews: Ella Sutton, Aprillyana Utami (University of Southampton)

Viva voce: Nicole Green Vella (University of York)

ACADEMIC VISITS

Ewha Womans University, South Korea. September to December 2025. (Host: Hyunju Lee)

University at Buffalo, NY, USA. March 2024 & June 2024. (Host: Noemi Waight; Sponsor: University of Southampton Faculty of Social Sciences)

University of California, Irvine, CA, USA. March to April 2023. (Host: Kim Fortun; Sponsor: University of Southampton Faculty of Social Sciences)

University of Groningen, Netherlands. June 2022. (Host: Lucy Avraamidou; Sponsor: ESERA)

HOST TO VISITING STUDENTS/SCHOLARS

Jee-Young Park (Research Assistant Professor, Mokpo National University, South Korea). 9/2025-8/2026

Junhyeok Park (Deputy Director, Ministry of Education, South Korea). 7/2023 - 1/2025

Lorenzo Miani (PhD Student, University of Bologna, Italy). 1/2024 - 4/2024

Noemi Waight (Associate Professor, University at Buffalo, NY, USA). 10/2022

UNIVERSITY SERVICE

Teaching leadership

Associate Programme Director, MSc Education, Southampton Education School (2024-2025)

Committee & working group membership

Member, University of Southampton Research Ethics Committee, AI Ethics Working Group (2024-)

Deputy Chair, Member and Ethics Champion for Education, Faculty of Social Sciences Research Ethics Committee (2023-)

Member and Ethics Champion for Education, Faculty of Social Sciences Research Ethics Committee (2021-)

Member, Head of School of Education Consultation Committee (2021-2023)

EXTERNAL SERVICE

Associate editor

Research in Science Education (2024-)

Journal of Research in Science Teaching (2025-)

Journal of Hazard Literacy (2025-)

Editorial board member

Journal of Science Teacher Education (2022-2025)

Journal of Research in Science Teaching (2023-2024)

Conference reviewer

National Association for Research in Science Teaching; European Science Education Research Association; International Society of the Learning Sciences

Journal reviewer

Science Education; Science & Education; Journal of Research in Science Teaching; International Journal of Science Education; Research in Science Education; International Journal of Science and Mathematics Education; Cultural Studies of Science Education; Journal of Science Teacher Education; Asia-Pacific Science Education; Research in Science & Technological Education; European Journal of Education; International Journal of Educational Research; Oxford Review of Education; Teaching and Teacher Education; International Journal of Chinese Education; International Journal of Comparative Education and Development; Journal of Education, Technology & Society; Journal of Curriculum Studies; Journal of Korean Association for Science Education; The Asia-Pacific Education Researcher; Education Sciences; Pedagogy, Culture and Society; British Educational Research Journal; British Journal of Learning Disabilities; Disaster Prevention and Management; Journal of Risk Research; Journal of Asian Architecture and Building Engineering; Green Chemistry Letters and Reviews; The Sociological Review

Grant reviewer

UK Research and Innovation (Economic and Social Research Council; Art and Humanities Research Council; Medical Research Council)

Israel Ministry of Innovation, Science and Technology

National panel membership

Panellist, Economic and Social Research Council, Grant Assessment Panel B (2025-)

Consultancy

Grenfell Tower Memorial Commission (2023)

Seoul Gangnam District Office (2023)

UNESCO Regional Bureau for Science and Culture in Europe (2022-23)

National Science Museum of Korea (2022)

Dankook University (2023)

Chuncheon National University of Education (2023-2025)

Responsibilities for academic organisations

Member, Association for Science Education Policy Specialist Group (2024-)

Mentor, European Science Education Research Association (ESERA) Doctoral Summer School (Tartu, Estonia). (2024)

Advisory Board Member, European Science Education Research Association (ESERA) SIG 8: FUTURES-oriented Science Education. (2024-)

Member, UK Research and Innovation (UKRI) Talent Peer Review College (2022-)

Member, Economic and Social Research Council (ESRC) Assessor College (2025-)

Member, National Association for Research in Science Teaching (NARST) Programme Committee

Scientific Committee Member, 18th Biennial Conference of the International History, Philosophy and Science Teaching (IHPST) Group (Lisbon, Portugal) (2025-2026)

Strand Coordinator, National Association for Research in Science Teaching (NARST) Strand 13: History, Philosophy, Sociology and Nature of Science (2025-2027)

Strand Co-Chair, European Science Education Research Association (ESERA) Strand 12: Equity, Diversity and Identity in Science Education (2024-2026)

Strand Co-Chair, European Science Education Research Association (ESERA) Strand 5: Interdisciplinarity and Education (2022-2024)

President, Oxford Korean Academic Society (2020-2021)

INVITED TALKS, SEMINARS & GUEST LECTURES

Korea National University of Education, Department of Chemistry Education. April 2019.

Ewha Womans University, Research Centre for Hazard Literacy Education (Hazard Literacy Seminar Series). November 2021.

Seoul National University, Department of Physics Education (Departmental Colloquium). December 2021.

University of Southampton, Southampton Education School (Education Research Seminar Series). March 2022.

CERN, Physics Education Research Group (IMPRESS: International Modern Physics & Research in Education Seminar Series). April 2022.

University of Groningen, Institute for Science Education and Communication. June 2022.

Institute of Physics & University of Birmingham. (Physics for Everyone: Physics Updates, Inclusion and Education Research Conference). June 2022.

Korea Advanced Institute of Science and Technology, Graduate School of Science and Technology Policy (Disaster Haggio #1). August 2022.

Seoul National University, Department of Science Studies (Social Issues in Science, Technology, Innovation and Medicine). September 2022.

King's College London, Centre for Research in Education in Science, Technology, Engineering and Mathematics (CRESTEM Seminar Series). May 2023.

Ministry of Eco Education & University of Southampton (Climate Teacher Regional Gathering). May 2023.

University College London, Institute of Education (Reimagining Disaster Education: Perspectives and Methodologies). May 2023.

University of Oxford, Oxford University Korea Society (Oxford Summit of Koreans in Academia 2023). June 2023.

Hiroshima University, Graduate School of Humanities and Social Studies. August 2023.

Chuncheon National University of Education. Department of Science Education. August 2023.

Seoul Women's University, School of Liberal Education. September 2023.

Seoul National University, Department of Physics Education. October 2023.

Korea Advanced Institute of Science and Technology, Graduate School of Science and Technology Policy. November 2023.

University at Buffalo. Department of Learning and Instruction, Graduate School of Education. March 2024.

University College London, Institute of Education (Reimagining Disaster Education: Perspectives and Methodologies). May 2024.

University of Southampton, Southampton Education School, UK-Taiwan ESRC Networking Conference. June 2024.

University of Tartu, Institute of Ecology and Earth Science Centre for Science Education (ESERA Summer School 2024). August 2024.

University of Southampton, Southampton Education School (Education Research Seminar Series). October 2024.

Institute of Physics. IOP Physics Education Research Symposium: Fostering Dialogue, Building Community, Identifying Priorities & Needs. October 2024.

Seoul National University. International Conference on Science Education in the Infosphere. November 2024.

Korea Advanced Institute of Science and Technology, Slow Disaster Lab. December 2024.

NARST International Committee. February 2025.

4.16 Institute for Life and Safety Education. April 2025.

Macquarie University, Macquarie School of Education. May 2025.

Ewha Womans University, Research Centre for Hazard Literacy Education (International Conference on Hazard Literacy). September 2025.

University at Buffalo, Asia Research Institute (AI and Data Science in Education - Insights from South Korea). September 2025.

Korean Association for Science Education (Horizon Series). September 2025.

Ewha Womans University, Research Centre for Hazard Literacy Education (Hazard Literacy Seminar Series). December 2025.

Korea National University of Education, KOICA-KNUE Master's Programme. December 2025.

EVENTS ORGANISED

A workshop by Noemi Waight (University at Buffalo, USA) at Mathematics, Science and Health Education Centre, University of Southampton. October 2022.

A conference "Disaster education for a just and resilient future", at the University of Southampton (Sponsor: ESRC). January 2023.

A symposium "The role of nature of science in tackling societal emergencies: An international perspective" (Strand 13) at the Annual Meeting of National Association for Research in Science Teaching (NARST), Chicago, IL, USA. April 2023; with Hagop Yacoubian (discussant), Alison Cullinane, Haira Gandolfi, Noemi Waight, Shakhnoza Kayumova, Jennifer Tripp, Feyza Achilova, Andreia Guerra, & Cristiano Moura (presenters).

A symposium "Connecting disaster and risk studies with science education research" (Strand 6) at the Biennial Conference of European Science Education Research Association (ESERA), Cappadocia, Türkiye. August 2023.

A symposium "STS as a lens to teach about disasters and the environment" at the Annual Meeting of the Society for Social Studies of Science (4S), Honolulu, HI, USA. November 2023.

A symposium "Education and memorialisation for disaster justice", at the University of Southampton (Sponsor: ESRC & Research England), February 2024; with Ian Byrne MP, Jiseong Lee, Eunhwa Lee, Hanan Wahabi & Phil Scraton.

A symposium "Nature of science in science curriculum and teacher education: A global perspective", at the Annual Meeting of National Association for Research in Science Teaching (NARST), Washington, DC, USA. April 2025; with Ryan Summers & Jacob Pleasants (co-organiser) and contributors from 10 countries.

A conference "Rebuilding futures: Memory, hope and education after disaster" at the 4.16 Institute for Life and Safety Education in Ansan, Korea (co-hosted by the University of Southampton). April 2025.

A symposium "Understanding science in the age of AI: Interfaces between epistemology, ethics, and NOS education", at the Annual Meeting of National Association for Research in Science Teaching (NARST), Seattle, WA, USA. April 2026; with Kerstin Kremer (co-organiser),

CONFERENCE PRESENTATIONS

Park, W., Park, J., & Song, J. (2016, January). Goethe's color theory: The subjective side of science and science education. Paper presented at the Annual International Conference of the Korea Association of Science

Education (KASE), Daegu, Korea.

Park, W., Park. J., & Song, J. (2016, August). Goethe's *Theory of Colours* (1810) and its implications for science education. Paper presented at the East-Asian Science Education (EASE) International Conference, Tokyo, Japan.

Park, W., & Song, J. (2017, January). Scientific pluralism as a key epistemic value for the practice turn in science education. Paper presented at The Past, Present and Future of Integrated HPS: An International Postgraduate Forum (IHPS Leeds), Leeds, United Kingdom. (Selected for travel award)

Park, W., & Song, J. (2017, August). Pluralism in science education and teachers' understandings of it. Paper presented at the Biennial Conference of European Science Education Research Association (ESERA), Dublin, Ireland.

Park, W., & Song, J. (2018, January). Between realism and constructivism: The place of pluralism for science education. Paper presented at the Annual International Conference of Korea Association of Science Education (KASE), Seongnam, Korea.

Park, W., Na, J., & Song, J. (2018, February). Characteristics of classroom interactions and teachers' communication strategy in early childhood science lessons using a software-based tablet PC. Paper presented at the 3rd SSK Networking Symposium, Seoul, Korea. (In Korean)

Park, W., & Song, J. (2018, March). Goethe's conception of 'experiment as mediator' and implications for school science practical work. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Atlanta, GA, USA. (Selected for travel award)

Park, W., Yang, S. & Song, J. (2018, June). Nature of science in relativity theory: Analysis of Korean textbooks. Paper presented at the International Science Education Conference (ISEC), Singapore. (Selected for travel award)

Park, W., & Song, J. (2018, July). Discovering the educational value of peripheral science: The case of Goethe's Naturphilosophie. Paper presented at the Annual Meeting of Korean Philosophy of Science Society (KPSS), Cheongju, Korea. (In Korean)

Park, W., Yang, S. & Song, J. (2019, April). When modern physics meets nature of science: Investigating new physics textbooks' representation of nature of science in general relativity using family resemblance approach. Paper presented at the Spring Meeting of Korean Physical Society (KPS), Daejeon, Korea. (In Korean) (Selected for outstanding presentation award)

Park, W. (2019, April). Challenging the theory-drivenness of experimentation: Exploratory experiments in physics and their educational values. Paper presented at the Spring Meeting of Korean Physical Society (KPS), Daejeon, Korea. (In Korean)

Park, W., Erduran, S., & Song, J. (2019, August). Exploring preservice teachers' collaborative development of history of science-based lessons. Poster presented at the Biennial Conference of European Science Education Research Association (ESERA), Bologna, Italy.

Park, W., Wu, J.-Y., & Erduran, S. (2019, August). Investigating the nature of STEM: Analysis of curriculum documents from the U.S., Korea and Taiwan using the family resemblance approach. Paper presented at

the Biennial Conference of European Science Education Research Association (ESERA), Bologna, Italy.

Park, W., Erduran, S., & Guilfoyle, L. (2020, June). Instructional practices facilitating argumentation in science and religious education classrooms: A case study of lower secondary teachers in England. Paper presented at the Australasian Science Education Research Association (ASERA) Conference. (Conference held online due to COVID-19]

Park, W. (2021, February). COVID-19 and the future of science teacher education. (Invited session title: The pandemic's social ecosystem: Learning new paths toward knowledge and trust). Paper presented at the American Association for the Advancement of Science (AAAS) Annual Meeting. [Conference held online due to COVID-19]

Park, W., Wu, J., & Erduran, S. (2021, April). Embedding the epistemic aspects of STEM disciplines in science curricula. Paper presented at the ESERA Sponsored Symposium at the Annual Meeting of National Association for Research in Science Teaching (NARST), Orlando, FL, USA. [Conference held online due to COVID-19]

Park, W., Erduran, S., & Hillier, J. (2021, April). Formative assessment of nature of science in a Grade 10 lesson on paradigm shift. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Orlando, FL, USA. [Conference held online due to COVID-19]

Park, W., Hillier, J., & Erduran, S. (2021, August). Science teachers' views and enactments of summative assessment of nature of science in the classroom. Paper presented at the Biennial Conference of European Science Education Research Association (ESERA). [Conference held online due to COVID-19]

Park, W., Erduran, S., & Guilfoyle, L. (2021, August). Instructional practices on argumentation in science and religious education lessons: A case study in England. Paper presented at the Biennial Conference of European Science Education Research Association (ESERA). [Conference held online due to COVID-19].

Park, W., & Cho, H. (2021, October). The purposes of history in teacher-developed STEAM curriculum materials. Paper presented at the International Conference for Educational Research (ICER). [Conference held online due to COVID-19]

Park, W., Erduran, S., Kim, M., & Song, J. (2022, April). "It's a lesson with no answer!": Understanding preservice teachers' lesson development using history of science. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Vancouver, BC, Canada.

Park, W. (2022, July). TeachDisasters: Science education for disaster preparedness and resilience. Paper presented at the East-Asian Science Education (EASE) International Conference, Daegu, Korea.

Park, W., Lee, H., Ko, Y., & Lee, H. (2022, July). "Safety" and "integration": The introduction of disaster into Korean science curriculum policy after the Sewol Ferry disaster. Paper presented at the Korean Science Education (KASE) Conference. [Conference held online due to COVID-19]

Park, W., & Avraamidou, L. (2023, April). Recognition as an equal or superior being? Science identity and Rousseau's theory of self-love. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Chicago, IL, USA.

Park, W. (2023, April). Learning about the epistemic and social aspects of science through a disaster case

study. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Chicago, IL, USA.

Park, W. (2023, July). The spatio-temporality of disaster and disaster science education. Paper presented at the Summer Conference of Korean Association for Science Education (KASE), Cappadocia, Turkey. (In Korean)

Park, W., Cullinane, A., Gandolfi, H., Alameh, S., & Mesci, G. (2023, August). Innovations and future directions in nature of science research: Reflections from early career academics. Paper presented at the Biennial Conference of European Science Education Research Association (ESERA), Cappadocia, Turkey.

Park, W. (2023, August). How can science education and disaster risk reduction intersect?. Paper presented at the Biennial Conference of European Science Education Research Association (ESERA), Cappadocia, Turkey.

Park, W. (2023, November). From Titanic to Sewol: Science education, resilience and disaster justice. Paper presented at the Annual Meeting of the Society for Social Studies of Science (4S). Honolulu, HI, USA.

Park, W., Shaby, N., & Newman, R. (2024, January). Integrating science and history learning: The Remembering Titanic project. Paper presented at the Annual Conference of the Association for Science Education (ASE). Northampton, UK.

Park, W. (2024, March). Interaction of history and STEM learning goals in teacher-developed curriculum materials. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Denver, CO, USA.

Park, W., Waight, N., St. Vil, C., Miles, M., & Mozaffari, F. (2024, June). Reimagining justice-oriented science education through disaster memories: Evidence from the Buffalo Blizzard of 2022. Paper presented at the Annual Meeting of International Society of the Learning Sciences (ISLS), Buffalo, NY, USA.

Park, W., Fancourt, N., & Habibi, A. (2024, September). Learning from Grenfell: Centering the disaster-affected community to promote education for social justice. Paper presented at the British Educational Research Association (BERA) Annual Meeting, Manchester, UK.

Park, W. (2024, September). Unnatural disasters: Reframing science education for social justice. Paper presented at the Biennial Conference of the International History, Philosophy and Science Teaching Group (IHPST), Buenos Aires, Argentina.

Park, W. (2024, September). Classroom assessment and NOS: Issues and prospects. Paper presented at the Biennial Conference of the International History, Philosophy and Science Teaching Group (IHPST), Buenos Aires, Argentina.

Park, W., Waight, N., Tripp, J., St. Vil, C., & Mozaffari, F. (2025, March). De-naturalizing climate disasters through justice-oriented science education. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Washington, DC, USA.

Park, W. (2025, March). Science education for disaster (in)justice: Lessons from Fukushima. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Washington, DC, USA. (ESERA Sponsored Symposium - Learning to live with the world: The role of science

education)

- Park, W.**, Waight, N., Tripp, J., St. Vil, C., & Mozaffari, F. (2025, June). Justice-oriented science education in an age of unnatural climate disasters. Paper presented at the Annual Meeting of International Society of the Learning Sciences (ISLS), Helsinki, Finland. (Symposium: Climate education for justice: Navigating geographies, data, and agency).
- Park, W.**, Martin, S., Wilmes, S., & Martins, I. (2025, August). In other words: Translation and localisation of key terms in science education. Exploratory seminar at the European Science Education Research Association (ESERA) Conference. Copenhagen, Denmark.
- Park, W.**, & Ha, H. (2025, August). Testing times: A structure/agency perspective on becoming a science teacher in a competitive, exam-based teacher selection system. Paper presented at the European Science Education Research Association (ESERA) Conference. Copenhagen, Denmark.
- Park, W.**, Hughes, C., & Downey, C. (2026, April). Does research count in shaping science education policy? Evidence from England. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Seattle, WA, USA.
- Park, W.**, & Ha, H. (2026, April). Testing times: Agency and identity in a competitive science teacher selection system. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Seattle, WA, USA.
- Park, W.** (2026, April). "Be better than you need to be": A-level physics students' peer pedagogy on TikTok. Paper presented at the Annual Meeting of National Association for Research in Science Teaching (NARST), Seattle, WA, USA.
- Park, W.**, & Brock, R. (2026, July). Nature of Science in an age of 'knowledge-rich' curriculum and centralised teacher education. Paper presented at the Biennial Conference of the International History, Philosophy and Science Teaching Group (IHPST), Lisbon, Portugal.
- Park, W.** (2026, July). From Lisbon to 9/11: Exploring the epistemologies of science through disaster investigations. Paper presented at the Biennial Conference of the International History, Philosophy and Science Teaching Group (IHPST), Lisbon, Portugal.

PROFESSIONAL ORGANISATIONS (CURRENT AND RECENT)

NARST: A Global Organisation for Improving Science Education Through Research (USA)

Association for Science Education (UK)

European Science Education Research Association

Korean Association for Science Education

Society for Social Studies of Science

International History, Philosophy and Science Teaching Group

International Society of the Learning Sciences

British Educational Research Association