

# WONYONG PARK

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November 2024

## ACADEMIC APPOINTMENTS

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2024 - Associate Professor of Science Education  
2021 - 2024 Lecturer in Science Education  
Southampton Education School, University of Southampton, UK

## EDUCATION

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2021 DPhil in Education, University of Oxford, UK  
Thesis: Foregrounding the background: Science teachers' practices in assessing students' understandings of nature of science  
2018 MSc in Science Education, Seoul National University, Korea  
2016 BSc in Physics Education (with Teaching Certificate), Seoul National University, Korea

## BOOKS

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**Park, W.** (2025). *Disaster education for social justice: A STEM-centred approach*. Routledge. (under contract; manuscript to be delivered in November 2024)

## EDITED VOLUMES

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Millar, V., **Park, W.**, & Dillon, J. (2024) (Eds). The science curriculum: Issues, tensions and future prospects. Special issue of *International Journal of Science Education*.  
**Park, W.**, Grace, M., Hutton, C., & Knowles, S. G. (2024) (Eds.). Teaching and learning about disasters: Scientific, social and historical perspectives. Special issue of *Science & Education*.

## JOURNAL ARTICLES

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

- Park, W.,** Lim, I., & Song, J. (in press). Exploring the intersection of disasters and science education with preservice science teachers through a disaster case study. *Cultural Studies of Science Education*.  
<https://doi.org/10.1007/s11422-024-10225-3>
- Brock, R., & **Park, W.** (in press). Distinguishing nature of science beliefs, knowledge and understandings: Towards clarity and coherence in educational goals related to nature of science. *Science & Education*.  
<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

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**Park, W.**, Chun, J., & Ji, H. (in press). 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*. Springer. [https://doi.org/10.1007/978-3-031-76297-0\\_21](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](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](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](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](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. Kiprijanov, & 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

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**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](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

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**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

## MANUSCRIPTS IN REVIEW

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**Park, W.**, Erduran, S., & Hillier, J. (in review). Building connections to teach nature of science: An experienced science teacher's formative assessment practice in a high school classroom. (Reject & Resubmit)

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., Townend, I., & Wanick, V. (in review). Anticipating futures: Understanding the fundamental importance of narratives through an integrative interdisciplinary approach.  
<https://doi.org/10.2139/ssrn.4993313>

## MANUSCRIPTS IN PREPARATION

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Ko, Y., & **Park, W.** (in preparation). Valuable, but not powerful: Middle school science teachers' interpretation and enactment of a science curriculum focused on disaster.

**Park, W.**, Hillier, J., & Erduran, S. (in preparation). "It's not fair to test 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.**, & Ha, H. (in preparation). Testing times: Science teacher candidates' identities and social roles in a test-based teacher selection system.

**Park, W.**, Fancourt, N., & Habibi, A. (in preparation). Learning from Grenfell: Centering the disaster-affected community to promote education for social justice.

Mainwaring, L., & **Park, W.** (in preparation). Medical students' experiences of the NHS Junior Doctor strikes in Wales.

## FELLOWSHIPS

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(Declined) Azrieli International Postdoctoral Fellowship 2021-2024	₪564,000 (~\$146,745) Azrieli Foundation
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Departmental Studentship 2018-2021	£45,000 (~\$56,151) Department of Education, University of Oxford
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Study-Abroad Doctoral Fellowship 2018-2021	\$120,000 Ilju Academic & Cultural Foundation
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## EXTERNALLY FUNDED GRANTS & CONTRACTS

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9/2024 - 8/2025	<p>Advancing disaster justice through teacher professional development with the Grenfell community</p> <p>Funder: Economic and Social Research Council (Impact Acceleration Account, University of Southampton Internal Allocation)</p> <p>Value: £20,947.11 (including joint funding from the University of Oxford [£3,000] and the Grenfell Foundation [£3,000])</p> <p>Role: Principal Investigator (Co-I: John Schulz &amp; Nigel Fancourt; RA: Harry Russell; Partners: The Grenfell Foundation, Grenfell United, Grenfell Tower Memorial Commission &amp; FutureLearn)</p>
1/2024 - 7/2024	<p>The Grenfell Curriculum: Developing principles for disaster justice education through community-based participatory research</p> <p>Funder: Research England</p> <p>Value: £30,000</p> <p>Role: Principal Investigator (Co-I: Nigel Fancourt)</p>
9/2023 - 8/2024	<p>RAPID: Co-developing a community-based science education curriculum framework for disaster justice and resilience: A response to the 2022 Buffalo Blizzard</p> <p>Funder: National Science Foundation (Award Number: 2326811)</p> <p>Value: \$100,000</p> <p>Role: Co-Principal Investigator (PI: Noemi Waight)</p>
2/2022 - 12/2023	<p>TeachDisasters: Exploring directions for post-pandemic disaster education through interdisciplinary collaboration between the UK and South Korea</p> <p>Funder: Economic and Social Research Council (Award Number: ES/W010917/1)</p> <p>Value: £49,921</p> <p>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)</p>
10/2022 - 2/2023	<p>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</p> <p>Funder: UNESCO Regional Bureau for Science and Culture in Europe</p> <p>Value: €8,000</p> <p>Role: Lead Individual Specialist (Team Members: Megumi Watanabe, Fang Jing, Laura Branchetti, Jingwen Song)</p>

## INTERNAL GRANTS

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2/2024 - 7/2024	<p>CPD course on the Grenfell Tower fire: A feasibility study</p> <p>Funder: University of Southampton Faculty of Social Science (Higher Education</p>
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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

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Vice Chancellor's Award, Finalist (Knowledge Exchange and Enterprise Category)

2024 University of Southampton

SIG Best Presentation Award, Finalist (Social Justice Special Interest Group)

2024 British Educational Research Association

Reviewer of Excellence Award, *Science & Education*

2024 International History, Philosophy and Science Teaching Group

Early Career Researcher Award

2023 Korean Association for Science Education

Reviewer of Excellence Award, *Science & Education*

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<sup>st</sup> Signal Brigade, The U.S. Army

## TEACHING

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(\* As module lead) († In 2023/24)

### **Southampton Education School, University of Southampton (Undergraduate)**

EDUC1033†	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)**

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**

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### **University of Oxford (completed)**

1 MSc Learning & Teaching

### **University of Southampton (completed and in progress, as of 2024/25)**

2 PhD Education

25 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

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

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

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

## HOST TO VISITING STUDENTS/SCHOLARS

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

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

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

## UNIVERSITY SERVICE

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### Teaching leadership

Associate Programme Leader, 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

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### Associate editor

*Research in Science Education* (2024-)

*Journal of Research in Science Teaching* (2025-)

### Editorial board member

*Journal of Science Teacher Education* (2022-)

*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; European Journal of Education; 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; British Journal of Learning Disabilities; Disaster Prevention and Management; Journal of Risk Research; 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

## **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)

## **Responsibilities for academic bodies**

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, UKRI Talent Peer Review College (2022-)

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 5: Interdisciplinarity

and Education (2022-2024)

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**

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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 Haggyo #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 2023.

## **EVENTS ORGANISED**

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

A conference “Teaching about disasters in the Anthropocene”, 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.

## CONFERENCE PRESENTATIONS

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- 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 3<sup>rd</sup> 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.

## **PROFESSIONAL ORGANISATIONS (CURRENT AND RECENT)**

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NARST: A Global Organisation for Improving Science Education Through Research

Association for Science Education

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