# **CURRICULUM VITAE**

# SIBEL ERDURAN

# (1) PERSONAL INFORMATION

Sibel Erduran

University of Oxford Department of Education

**United Kingdom** 

Email: Sibel.Erduran@education.ox.ac.uk

# (2) CURRENT APPOINTMENTS

2017-present Professor of Science Education

Fellow, St Cross College

2020-2024 Director of Research, Department of Education

2020-2025 Editor-in-Chief, Science & Education

2011-present Editor, International Journal of Science Education

2019-2023 President, European Science Education Research Association

# (3) PREVIOUS APPOINTMENTS

2020-2022 Professor II, Naturfagsenteret, University of Oslo, Norway

Workshops with early career researchers, staff mentoring, seminars

and research collaborations

2018-2020 Visiting Professor, Zhejiang Normal University, China

Workshops, seminars and research collaborations

2018-2019 Visiting Professor, Oxford Brookes University, UK

Staff mentoring to produce collaboratie publications Workshops on research design and methodology

2016-2017 National Taiwan Normal University, Taipei, Taiwan

**Distinguished Visiting Professor** 

Funded by Taiwan Global Talent Network Project

Professional development of science teachers in Taiwan 2014-2017 University of Limerick, Ireland Chair of STEM Education Director of EPI STEM, the National Centre of STEM Education Change management, Department of Education & Professional Studies (DEPS) Chair of DEPS Research Committee **DEPS Senior Management Team** Faculty of Education & Health Sciences Research Committee Athena SWAN Steering Committee **Buildings & Estates Committee Bogazici University, Turkey** 2013-2015 Visiting Professor, EU Marie-Curie/TUBITAK Fellowship Funded project entitled Revisiting Scientific Inquiry in the Classroom: Towards an Interdisciplinary Framework in Teaching and Learning University of Bristol, UK **Professor of Science Education** 2010-2014 2012-2014 Director, Learning Inquiry Thematic Group 2012-2014 Coordinator, Centre for Interdisciplinary Studies in Science Education 2009-2012 Deputy Director of Research (Grants) 2009-2012 Director, MSc Science & Education Programme 2008-2010 Reader in Education (Science) 2006-2008 Senior Lecturer in Education (Science) 2005-2006 Lecturer in Education (Science) 2008-2011 Coordinator of DICE Network (Early to Mid-Career Researchers Network) 2005-2011 Coordinator of Science Education Research Network 01-12 2012 Kristianstad University, Sweden **Visiting Professor** Teaching of a unit on the Interdisciplinary Studies in Science Seminars on argumentation and visualisation Consultations and advice to PhD students. King's College, University of London, UK 2003-2004 Principal Investigator of "King's College London - Weizmann Institute of Science Research Project on Continuing Professional Development in Science Teaching" funded by the Gatsby Foundation 03-09/2004 Principal Investigator of "Ideas and Evidence: Science Enrichment Project" supported by the Key Stage Three Strategy of the Department of Education and Employment and the Gatsby Foundation

Teaching postgraduate module on nature of science in science education

2002-2003	Co-Investigator of "Ideas, Evidence and Argument in Science Project" funded by the Nuffield Foundation
1999-2002	Principal Researcher of "Enhancing the Quality of Argument in Science Lessons Project" funded by the Economic and Social Research Council
2002-2004	Researcher in "Kenyetta University-King's College London Research Link Project" funded by the British Council
1995-1998	Vanderbilt University, TN, USA Research assistant in <i>Department of Learning and Instruction</i> funded by the National Science Foundation
1996-1997	Research assistant in "National Center for Improving Student Learning and Achievement in Mathematics and Science" funded by Department of Education
Spring1996	Research assistant at the <i>Cognition and Technology Group at Vanderbilt</i> as part of the Schools for Thought Program funded by the US Department of Education
1993-1995	University of Pittsburgh, PA, USA Research assistant in the Department of Instruction and Learning and in Project SEPIA funded by the National Science Foundation
1991-1993	Cornell University, NY, USA Research assistant in Professor Joseph H. Hotchkiss' laboratories. Investigated the interactions of food components such as lipids with food additives such as nitrites
1989-1991	Guzelyurt Turk Maarif Koleji, Cyprus  Teacher of middle-school science and high school chemistry in a secondary school with British system of education. Taught GCE O and A level chemistry classes
1988-1989	Northwestern University, IL, USA Research assistant in Professor Robert L. Letsinger's laboratories. Investigated the role of synthetic DNA in the anti-sense treatment of AIDS

# (4) EDUCATION

## **Vanderbilt University**

Nashville, TN, USA

PhD Education, August 1999

Major Field, Science Education/ Minor Field, Philosophy

<u>Thesis:</u> Merging Curriculum Design with Chemical Epistemology:

A Case of Learning Chemistry through Modeling

## **Cornell University**

Ithaca, NY, USA

MS Food Science, August 1993

Major Field, Food Chemistry/ Minor Field, Chemistry

<u>Thesis:</u> Retardation of Triolein Oxidation by Dinitrogen Trioxide

# **Northwestern University**

Evanston, IL, USA

BA Biochemistry, June 1989

# (5) SPECIAL AWARDS, HONOURS AND DISTINCTIONS

AERA Fellow, 2021 (https://youtu.be/5vaPKci8prM)
PISA 2024 Science Strategic Visioning Expert Group, 2020
Freeman of the Worshipful Company of Salters, 2020
EASE Outstanding Paper Award, 2016
ESERA Executive Board, 2015-2019
TUBITAK Fellowship, 2013-2015
IHPST Council, 2013-2015
NARST Executive Board, 2010-2013
AERA Outstanding Reviewer Award, 2010
NARST Best Paper Award, 2005
Spencer Foundation Fellowship Award, 1998
Fulbright Program Fellowships, 1985, 1991

# (6) TEACHING

#### Student Remarks:

http://100stories.edn.bris.ac.uk/education/centenary/stories/story/it-is-never-too-old-to-go-ba/47/

"My dissertation mentor, Professor Sibel Erduran, had the greatest influence on me at Bristol. The discussions we had about research, education matters and other issues in both formal and informal settings have helped shaped my views about science education and science education research. Her encouragement and belief in my abilities have also boosted my confidence in pursuing my PhD studies." (Yan Shiou Ong)

#### 2017-present <u>University of Oxford</u>

#### 2020-2021 Academic year

MLT Science, all session and course coordinator MLT 4 Part-2 and 3 Part-3 student supervision DPhil 4 supervisions

#### 2019-2020 Academic year

MLT Science, all session and course coordinator MLT 4 Part-2 and 3 Part-3 student supervision MSc thesis supervision 1 MLT and MTEd Dissertation Marking DPhil 4 supervisions

#### 2018-2019 Academic year

MLT Science, all session and course coordinator MLT 3 Part-2 and 5 Part-3 student supervision MLT and MTEd Dissertation Marking DPhil 3 supervisions

#### Hillary & Trinity Terms (2017, 2018)

Marking of PGCE and MLT assignments PGCE Science 8 interns, 13 PDP interns

Philosophy in Educational Research: 2 sessions on ontology and epistemology PGCE 8 interns, 13 PDP interns

MLT 3 sessions; supervision of 8 Part-2 and 3 Part-3 students

MLT and MTEd Dissertation Marking

DPhil 4 supervisions (3 at Limerick)
St Cross College Tutees, 5 from different subjects

#### Final DPhil Viva (Internal Examiner)

Jennifer McCowan-Smyth (Supervisor Dr Judith Hillier, 2019) Diana Ng (Supervisor Professor Jo-Anne Baird, 2019)

#### Confirmation of Status (DPhil)

Jennifer McCowan-Smyth (Supervisor Dr Judith Hillier, 2018) Diana Ng (Supervisor Professor Jo-Anne Baird), 2017 Jiangshan An (Supervisor Dr Ann Childs), 2017

#### Transfer of Status (DPhil)

Daniela Diaz Rojas, Hilary 2019 and Michaelmas 2019 (repeated) (Supervisors Dr Jenni Ingram and Professor Gabriel Stylianides)

#### 2015-2017 University of Limerick

EN7013 Foundations of Social Scientific and Education Research and Practice: Epistemology and Ontology (12 students) – Summer 2015

#### PhD Viva Chairing

#### Autumn 2015

Ciaran Sheehan (Supervisor Dr Geraldine Moonie Simmie) Mags Liddy (Supervisor Dr Oliver McGarr) Antonia Brown (Supervisor Dr Patricia McNamara) Ciaran Sheehan (Supervisor Dr Geraldine Moonie Simmie)

#### PhD Progression Chair and Examiner

Autumn 2016, 4 students Autumn 2015, 8 students

#### **PhD Supervision**

Ailbe Burke Maria Kyne Carolann Bargary

#### 2005-2014 University of Bristol

# **Doctoral Training Centre**

Interdisciplinary Studies of Science Summer 2012 (9 students)

#### **PhD Supervision**

Ana Montana, Argumentation in informal contexts in Chile, from 2011-2013 Xiaomei Yan, *Framing argumentation from an activity theory perspective*, from Autumn 2009 (University Centenary Scholarship)

#### <u>Postgraduate Certificate in Education (PGCE)</u>

Management of PGCE Science (Autumn 2007) Management of PGCE Chemistry (2005-2007)

### (a) Seminars and practical laboratory sessions

Spring 2009 (56 students), Autumn 2008 (58 students), Autumn 2007 (58 students), Autumn 2006 (60 students), Spring & Summer 2005 (55 students), Autumn 2005 (58 students)

#### (b) Individual supervisions

Spring 2009 (16 students), Autumn 2008 (16 students), Autumn 2007 (8 students), Autumn, Spring and Summer 2006 (8 students), Spring and Summer 2005 (11 students), Autumn 2005 (15 students)

#### MEd Research Methods

(a) Philosophy of Social Sciences

Spring 2013 (28 students), Spring 2012 (26 students), Spring 2011 (22 students), Spring 2010 (21 students), Spring 2009 (20 students), Spring 2008 (21 students), Spring 2007 (28 students), Spring 2006 (12 students)

- (b) Research Design and Philosophy Spring 2013 (24 students), Spring 2012 (21 students)
- (c) Interdisciplinary Studies of Science Spring 2012 (9 students)

#### MSc Science and Education

Programme Director, January 2009-2012

(a) Trends in Science Education Research Unit

Autumn 2011 (13 students, 9 supervisions), Autumn 2010 (4 students), Autumn 2009 (3 students in class, 3 supervisions), Autumn 2008 (5 students in class, 3 individual supervisions), Spring 2008 (14 students in class, 3 individual supervisions), Spring 2007 (7 students in class, 3 individual supervisions)

(b) Teaching, Learning and Assessment in Science Education Unit Autumn 2011 (11 students), Autumn 2010 (15 students) – Coordinator and Tutor

#### Postgraduate Diploma

Philemona Igere, Spring 2013

#### MSc (Education, Technology and Society) Dissertation Supervision

Mike Cameron, ALT Culture: discourses and identities emerging through the Association of Learning Technology, October 2005

Irene Theophanous, *The role of online communication in identity construction*, October 2005

Mohsen Hakami, Teachers' perspectives on integrating ICT in teaching and learning in Saudi Arabian primary schools: current usage and challenges, October 2006

Xiaomei Yan, PGCE students' argumentation with Belvedere, September 2008

MSc (Science & Education) Dissertation Supervision

Julie Best, ESL Teachers' perceptions towards teaching and learning science in Colombia, 2013

Alice Berry, Effect of explicit teaching of nature of science, 2012

Cheryl Dean, Argumentation in science education, 2012

Patrick Heuff, Scientific literacy and science education, 2011

Onur Imren, Learning of science through computer simulations, 2011

Ong Yann, Teaching Modeling in Science Classrooms in Singapore, 2011

Damian Murphy, Argumentation& Assessment for Learning, September 2011

Jon James, Scientific literacy in the UK context, September 2009

Catherine Stevens, Action research in science education, September 2009

Chan Suk Chin, Current practices of scientific discourse and argumentation in science education: a mixed methods investigation based in Brunei Darussalam, September 2008

Woei Yng tan, Ex-play-tion: How does play help in the learning of science for primary school children in Singapore, September 2007

#### PhD & EdD (Science Education) Supervision

Ka Ching Cheung, from 2022

Erik Kappe, from 2017

Kyla Smith, from 2019

- Aizuddin Mohamed Anuar, STEM education and young people's aspirations for development in "luar bandar": A Malaysian case study, University of Oxford, completed 2022
- Wonyong Park, Foregrounding the Background: Investigating Science Teachers' Practices in Assessing Students' Understandings of Nature of Science (Ilju Academic & Cultural Foundation Scholarship), University of Oxford, completed 2022
- Olga Ioannidou, Socio-scientific Argumentation in Science Education: A Systematic and Critical Review of Research, University of Munich, Germany, completed 2020 (External Supervisor)
- Liam Guilfoyle, A Longitudinal Study Exploring the Influence of Epistemic Beliefs on Pre-Service Science Teachers' Perceptions of Education Studies, University of Limerick, completed 2018
- Sila Kaya, Enhancing pre-service science teachers' understanding of how science works in society: The role of economics and entrepreneurship in nature of science, University of Limerick, completed 2018
- Alison Cullinane, Integrating nature of science in initial teacher education, University of Limerick, completed 2018
- Yasemin Ozdem, Argumentation in science teacher education, Middle East Technical University (External Supervisor), completed 2014
- Maryam al Wateed, Teachers' perceptions of educational reform in Kuwait, EdD, University of Bristol, completed 2013
- Demetris Lazarou, Using Cultural-Historical Activity Theory to Promote

Argumention in Primary Science Education, University of Bristol, completed 2013

Leo Mayers, Nursing students' perceptions of physiology, University of Bristol, completed 2011

Wing-Chuen Ho, An examination of how e-learning could be integrated with traditional classroom teaching to enhance the effectiveness of learning chemistry in schools, University of Bristol, completed 2010

Lawrence Cattermole, Interrelationships in science concepts between teaching and learning in science, completed 2009 (ESRC doctoral scholarship; University of Bristol Outstanding Dissertation Award)

#### 2005-2006

# Reading Group Coordinator, LKIT, Graduate School of Education, University of Bristol

Convened and led a reading group of doctoral students, researchers and lecturers on various themes such as activity theory and discourse analysis

1999-2004 Autumn 2003&

## King's College, University of London

## **PGCE Chemistry**

Spring 2004 Lectu

Lecturer and mentor of science student teachers. 10 students tutored individually and in tutor groups

Spring 2004

# **MA module in Conceptual Development and Science Learning**

Lecturer and course organiser for 10 sessions with 8 students

Autumn 2003 & Spring 2004 2002-2004

## MA module in English Language Teaching and Applied Linguistics

5 sessions, 25 students on quantitative research methodology

#### **Academic Language Development Programme**

Lecturer, 2 sessions per term with 25 students. Widening Participation course with ethnic minority backgrounds into academic discourses, with Professor Brian Street and Dr Constant Leung

#### 1999-2004

#### Occasional Lecturer (one or two three hour sessions)

- •MA in Qualitative Methodology (Spring 2000, 2001, 2002; Summer 2002, Spring 2003)
- •MRes in Social Sciences (Autumn 2002, Spring 2003)
- •PGCE Investigations (Spring 2000, 2001, 2002, 2003)
- •MA Conceptual Development and Science Learning (Spring 2001, 2002, 2003)
- •MA Trends in Science Education (Autumn 2000)

#### **Dissertation supervisions**

•BA/BS Education Martin Walsh, *Mature students' perceptions of university environment* (Spring 2004)

- •BA/BS Education, Laura Santangelo, *Importance of social and cultural influences on second language acquisition in context*, Spring 2003
- •BA/BS Education, Dayana Bardati, *Period abroad for students of modern foreign languages in higher education* (Spring 2002)
- •BA/BS Education, Trupti Tanzaria, A Qualitative study of the nature of competition and choice in the context of a comprehensive and grammar school, Spring 2001
- •MA Computers in Education, Mark Everett, Can ICT as a tool help boys and airls do better in science? Spring 2002
- •PhD Science Education, Examiner for Olga Gioka's upgrade to PhD studies, Spring 2001

#### 2002-2003 King's Science and Technology Education Unit Seminar Series

Chair of weekly seminar series, planning and chairing of seminars, hosting of visitors including leading academics such as Professor Nancy Cartwright

## 1989-1991 Guzelyurt Turk Maarif Koleji, Cyprus

Teacher of chemistry and general science in an English-medium secondary school with British system of education

# **Invited PhD Supervision/Schools**

May 2021 University of Malmo, Sweden

Seminar with PhD students on publishing in science education journals

January 2021 **Høgskulen på Vestlandet, Norway** 

Seminar with MSc students on Nature of Science in Science Education

May 2020 Gazi University, Turkey

Doctoral seminar on Nature of Science in Science Education, with 8 students

February 2019 **REASON Doctoral School, Germany** 

Invited keynote lecture

June 2017 NARST Sandra K. Abell Research Institute for Doctoral Students, Taiwan

Co-organiser, group supervision of 6 students and talk

June-July 2016 National Taiwan Normal University, Taiwan

Nature of Science in science education, 12 students

June 2013 SERA First PhD Research School, Canakkale, Turkey

Invited talk "Revisiting the Nature of Science in Science Education: The Role of Interdisciplinarity in Science Education" and Workshop "Publishing in

Science Education Research Journals", Science Education Research Association of Turkey, 26 PhD students, funded by TUBITAK

June 2012 SAARMSTE Research School, South Africa

Invited mentor and speaker at the Southern Association for Research in Mathematics, Science and Technology Education

March 2012 University of Delaware, USA

Seminar on nature of science in science education with 10 doctoral students

February 2011 Seoul National University, Korea

Workshop with 10 PhD students on "Methodological Approaches in the Study of Argumentation in Science Classroom"

August 2009 Ahi Evran University, Turkey

Invited organiser, presenter and evaluator of the first PhD School in Science Education in Turkey, with 35 doctoral students and their supervisors

March 2009 University of Oslo, Norway

Invited doctoral seminars on argumentation in science education, 18 students

November 2008 Nordic-Baltic PhD School, Sweden

Invited speaker, "Appeal to reason, appeal of reason: The role of argument in science education", 30 students

May 2008 University of Witwatersrand, South Africa

Workshop on data analysis in qualitative research and individual

consultations with about 10 PhD students

November 2007 Catalonian Science and Mathematics PhD School, Spain

Keynote speaker, "Methodological investigations in the study of

argumentation"

March 2007 University of Santiago de Compostela, Spain

Workshop on research in science education with 4 PhD students

March 2006 Kaleidoscope Virtual Doctoral School in Argumentation

Organiser of workshops with 15 European students visiting Bristol, funded by

**EU Kaleidoscope Network** 

June 2004 University of Santiago de Compostela, Spain

Workshop on data analysis with 8 PhD students

Summer 2002 PhD Summer School of the European Science Education Research

Association, Radovljica, Slovenia

Workshop on "Discourse Analysis in Science Education" and PhD thesis

supervision of a group of 6 students

# **Invited Workshops/Teacher Training**

October 2021 UCL Institute of Education

Online workshop on STEM education with 30 Primary PGCE interns

November 2020 AQA Oxford International Conference

Online workshop on Project Calibrate with 90 teachers

May 2020 ASE Regional London Conference

Workshop entitled "Assessing doing and thinking of practical science:

Examples from Project Calibrate"

August 2019 European Science Education Research Association Conference,

Bologna, Italy

Workshop on "The Challenges involved in reviewing papers and proposals for

high impact journals and conferences", with M. P. Aleixandre Jimenez and

Knut Neumann

June 2019 **Zhejiang Normal University, China** 

Workshop on teaching and learning of argumentation with teachers and

headteachers

June 2019 **Zhejiang Normal University, China** 

Workshop for early career researchers on academic writing and publishing

November 2017 Wetherby Senior School, London, UK

Workshop with Heads of Science from the 59 Club

July 2017 National Taitung University, Taiwan

Workshops of a total of 36 hours with 26 kindergarten teachers on curriculum

design on nature of science and argumentation in science teaching

June 2017 Taipei Municipal Chenggong High School, Taiwan

2 Workshops with high school teachers on curriculum design on nature of

science and argumentation in science teaching

August 2016 East Asian Association for Science Education, Japan

Workshop with Onur Imren on "Learning scientific practices through video games"

July 2016 Ministry of Science & Technology, Taiwan

Workshop on "Theory into Practice in Science Education" with about 70

academics and researchers from across Taiwan

April 2016 Bogazici University, Turkey

Workshops on "nature of science in science teacher education" with 14 preservice science teachers, and "publishing in science education journals" with

MSc students

November 2015 Ministry of Education, Singapore

Workshop on nature of chemistry with 90 teachers

November 2015 International Science Teaching Conference, Singapore

Mass lecture on argumentation with 200 teachers and teacher trainers

February 2015 Amgen Teach Conference, University of Maynooth, Ireland

Workshop with about 50 teachers on argumentation in science education

November 2014 Ministry of Education, Singapore

Workshop with 30 Ministry officials, teacher trainers and teachers on nature

of science and argumentation in science teaching and learning

August 2013 IUPAC Conference, Istanbul, Turkey

Workshop with teachers and researchers on teaching and learning of

chemistry through argumentation

March 2012 University of Delaware, USA

Workshop on teachers' professional development in argumentation with 8

trainee teachers

2011 Seoul National University, Korea

Workshop with 10 teachers and researchers on "Learning to Teach

Argumentation: Supporting the Professional Development of Science

Teachers in Coordinating Argumentation in the Classroom"

2008 TDA NQT Project, Bristol

One 3-hour session on 'How Science Works' with 8 newly qualified teachers

2007 Science Learning Centre South West, Bristol

Invited one 3-hour session on 'How Science Works' with 10 teachers

2006 Teacher Training in South Africa

Invited training of 10-15 science teachers at University of Limpopo, Pietersburg and Nelson Mandela Metropolitan University, Port Elisabeth

2006 Teacher Training in Taiwan

Invited training of about 30 science teachers at Kaohsiung National Normal

University

Summer 2004 Heads of Science Annual Conference, Durham City Council, Durham

Invited training on ideas, evidence and argument with about 20 science

teachers

**Key Stage 3 Initial Teacher Training Network Conference, Manchester** 

Invited training on ideas, evidence and argument with about 15 science

teachers

Autumn 2003 Ipswich City Council, Key Stage 3 Subject Leaders' Conference, Ipswich

Invited training on ideas, evidence and argument with about 25 science

teachers

Spring 2003 Trainer for IDEAS In-Service Professional Development Programme

Conducted five half-day training workshops with middle-school science

teachers in London with numbers ranging from 6-12.

2000-2003 Teacher training – International Education Unit, King's College London

• Egypt Programme (Chemistry Teaching, Autumn 2000)

• Sri Lanka Programme (Discourse and Argumentation, Summer 2003)

# **Visiting PhD Student Supervision**

Martina Caramaschi, University of Bologna, Italy, Erasmus Scholarship, MSc (Spring 2020)

Miguel Romero Gutiérrez, University of Almeria, Spain (Spring 2016)

Renata Orofino, University of Sao Paolo, Brazil (Autumn 2014)

Yasemin Ozdem, Middle East Technical University, Turkey, YOK Scholarship (Spring 2013)

Beatrix Perez, Universidad Santiago de Compostela, Spain (Spring 2011)

Yasemin Ozdem, Middle East Technical University, Turkey (Spring 2009), ESERA Travel Award

Sandra Gilabert, University of Barcelona, Spain, Generalitat de Catalunya Award (Spring 2009)

Ebru Kaya, Middle East Technical University, Turkey, YOK Scholarship (2009-2010)

Pinar S. Cetin, Middle East Technical University, Turkey, YOK Scholarship, (Autumn 2009)

Aikaterini Konstantinidou, University of Barcelona, Spain, ESERA Travel Award (Summer 2008)

## **Post-Doctoral Supervision**

Dr Bianca Reinisch, Freie Universitat Berlin, Germany (Spring 2019), ESERA Travel Award

Dr Jen-Yi Wu, Taiwan Ministry of Science and Technology Scholarship (Spring 2019)

Dr Bahadir Namdar, R.T.E University, Turkey, Erasmus Programme (Spring 2016)

Dr Naira Diaz Moreno, University of Almeria, Spain (Autumn 2015)

Dr Audrey Msimanga, University of the Witwatersrand, South Africa (Autumn 2014)

Dr Carolina Martin-Gamez, University of Malaga, Spain (Autumn 2014 & Summer 2015)

Dr Aybuke Pabuccu, Abant Izzet Baysal University, Turkey (Autumn 2011), YOK Scholarship

Dr Maria Evagorou, University of Nicosia, Cyprus (Summer 2011), ESERA Travel Award

Dr David Cross, University of Lyon, France (Autumn 2010)

Dr Jee-Young Park, Seoul National University, South Korea (2010-2011)

Dr Ebru Mugaloglu, Bogazici University, Turkey (2010-2011), Postdoctoral Fellow, YOK

# **Visiting Professor Hosting**

Professor Miri Barak, Israel (2021-2023)

Dr Terhi Mantyla, University of Turku, Finland (2022)

Professor Ebru Kaya, Bogazici University, Turkey (2021-2023)

Professor Stein Dankert Kolsto, University of Bergen, Norway, (2021-2023)

Professor Erin Peters-Burton, George Mason University, USA (Nov 2021, Astor Travel Award) <a href="https://youtu.be/76EBI5ZTL-Y">https://youtu.be/76EBI5ZTL-Y</a>

Dr Miri Barak, Technion, Israel Institute of Technology, Israel (2020-2022)

Dr Ebru Kaya, Bogazici University, Turkey (2019-2021)

Professor Rosaria Justi, University of Minas Gerais, Brazil (2012-2013)

Dr Rosa Villamanan, University of Valladolid, Spain (Spring 2007)

# (6) RESEARCH

# (i) PUBLICATIONS

# **Editorials**

Erduran, S. (Ed.) (2022). Trust in Science and Science Education — Part 1. *Science & Education* 31, 1101–1104. https://doi.org/10.1007/s11191-022-00386-4

Erduran, S. (Ed.) (2022). Too philosophical, therefore useless for science education? *Science & Education*. <a href="https://doi.org/10.1007/s11191-022-00340-4">https://doi.org/10.1007/s11191-022-00340-4</a>

Erduran, S. (Ed.) (2021). Respect for Evidence: Can Science Education Deliver It? *Science & Education* 30 (3), 441–444. https://doi.org/10.1007/s11191-021-00245-8

Erduran, S. (Ed.) (2021). Science education and the pandemic, 1 year on: emergence of new conceptual tools and re-calibration of existing educational approaches. *Science & Education*, 30(2), 201-204. https://doi.org/10.1007/s11191-021-00201-6

Erduran, S. (Ed.) (2020). Nature of STEM? Epistemic Underpinnings of Integrated Science, Technology, Engineering, and Mathematics in Education. *Science & Educ*ation, 29(4), 781–784. https://doi.org/10.1007/s11191-020-00150-6

Erduran, S. (2020). Bringing nuance to "the science" in public policy and science understanding. *Science & Education*, 29(3), 487-489. https://doi.org/10.1007/s11191-020-00137-3

Erduran, S. (2020). Science education in the era of a pandemic. *Science & Education*, 29(2), 233–235 https://doi.org/10.1007/s11191-020-00122-w

Erduran, S. (2020). Editorial vision for Science & Education. *Science & Education*, 29(1), 1–5. DOI: 10.1007/s11191-020-00102-0

Erduran, S. (Ed.) (2015). Editorial: Focus on Scientific Practices. *Science Education*. 99(6), pp. 1023-1025.

Duschl, R., Erduran, S., Grandy, R., Rudolph, J. (Eds.). (2008). Science Studies and Science Education. Special Issue, *Science Education*, Editorial, 92(3), 385-388.

Erduran, S. (Ed.) (2007). Editorial: Argument, Discourse and Interactivity. Special Issue of *School Science Review*, 88(324), 29-30.

# **BOOKS/EDITED BOOKS & VOLUMES**

Erduran, S., & Kaya, E. (2019). *Transforming Teacher Education through the Epistemic Core of Chemistry: Empirical Evidence and Practical Strategies*. Dordrecht: Springer.

Erduran, S. (Ed.) (2019). *Argumentation in Chemistry Education: Research, Policy and Practice.* London: Royal Society of Chemistry.

McLoughlin, E., Finlayson, O., Erduran, S., & Childs, P. (Eds.) (2019). *Bridging Research and Practice in Science Education*, Selected Papers from the ESERA 2017 Conference. Dordrecht: Springer.

Finlayson, O., McLoughlin, E., Erduran, S., & Childs, P. (Eds.) (2018). Electronic Proceedings of the ESERA 2017 Conference. Research, Practice and Collaboration in Science Education. Dublin, Ireland: Dublin City University. ISBN 978-1-873769-84-3

Erduran, S., & Dagher, Z. (2014). *Reconceptualizing the nature of science for science education: Scientific knowledge, practices and other family categories*. Dordrecht: Springer.

Erduran, S. (Ed). (2013). *Philosophy, Chemistry and Education*. Special issue of *Science & Education* Journal, 22(7), pp.1559-1893. ISSN: 0926-7220 (Print) 1573-1901 (Online)

Koseoglu, F., Erduran, S., & Tasar, F. (Eds.) (2010). Nature of science in science education. Special issue of Ahi Evran University Journal, 11(4), pp.1-292.

Balacheff, N., Koskinen, T., & Erduran, S. (Eds.) (2010). Technology Enhanced Science Education. *eLearning Papers*, No.20. ISSN 1887-1542

Erduran, S., & Jimenez-Aleixandre, M. P. (Eds.) (2007). *Argumentation in Science Education: Perspectives from Classroom-Based Research*. Dordrecht: Springer. 285p. ISBN: 978-1-4020-6669-6)

# **ACADEMIC JOURNAL PAPERS (REFEREED)**

Guilfoyle, L., Erduran, S., & McCormack, O. (in review). The role of research experiences in developing pre-service teachers' epistemic beliefs. *Teaching and Teacher Education*.

Korsager, M., Reitan, B., Fiskum, K., & Erduran, S. (in press). Nature of Science in Science Textbooks for Vocational Training in Norway. *Research in Science and TechnologicalEducation*.

Barak, M., Ginzburg, T., & Erduran, S. (in press). Nature of Engineering: A cognitive and epistemic account. *Science & Education*.

Barak, M., Yachin, T., & Erduran, S. (2022). Tracing preservice teachers' understanding of nature of science through their drawings and writing. *Research in Science Education*. https://doi.org/10.1007/s11165-022-10069-3

Mork, S. M., Haug, B. S., Sørborg, Ø., Ruben, S., & Erduran, S. (2022). Humanizing the Nature of Science: An Analysis of the Science Curriculum in Norway. *International Journal of Science Education*. https://doi.org/10.1080/09500693.2022.2088876

Scheie, E., Haug, B., & Erduran, S. (2022). Critical thinking in the Norwegian science curriculum. *Acta Didactica Norden*, *16*(2), *27 sider*. <a href="https://doi.org/10.5617/adno.9060">https://doi.org/10.5617/adno.9060</a>

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*. DOI: 10.1080/09500693.2022.2074565

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#### **BOOK CHAPTERS**

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Erduran, S., Osborne, J., & Simon, S. (2002). Argument in school science: Reflections from classroom discourse. In, S. Gatt (Ed.), Proceedings of the Conference titled "Linking Science, Technology and Mathematics Education and their Social Relevance", <u>Commonwealth Association for Science, Technology and Mathematics Education</u>, pp. 123-148, St Julians: University of Malta.

Erduran, S. (2002). Philosophy of chemistry in the curriculum. In, S. Gatt (Ed.), Proceedings of the Conference titled "Linking Science, Technology and Mathematics Education and their Social Relevance", Commonwealth Association for Science, Technology and Mathematics Education, pp. 166-180, St Julians: University of Malta.

Aduriz-Bravo, A., Erduran, S., & Meinardi, E. (2002). Philosophies of chemistry and biology as emergent disciplines and their contributions to science education. In, S. Gatt (Ed.), Proceedings of the Conference titled "Linking Science, Technology and Mathematics Education and their Social Relevance", <u>Commonwealth Association for Science, Technology and Mathematics Education</u>, pp. 96-104, St Julians: University of Malta.

Osborne, J., Simon, S., Erduran, S., & Monk, M. (2001). Enhancing the quality of argument in school science. <u>Proceedings of the Third International Conference on Science Education Research in the Knowledge Based Society</u>, Vol. 1, pp.175-177, Thessaloniki: Aristotle University of Thessaloniki.

Erduran, S. (2001). Teaching critical themes from philosophy of chemistry: The case of reduction in chemistry education. Proceedings of the 6th <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Denver, USA, CD-rom.

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Aduriz-Bravo, A., & Erduran, S. (2001). La epistemología específica de la biología como disciplina emergente y su posible contribución a la didáctica de la biología. V jornadas Nacionales de Enseñanza de la Biología. <u>Proceedings of the Fifth Symposium on Biology Teaching</u>. Posadas, Argentina.

Erduran, S. (1999, September). Philosophy of chemistry: An emerging field with implications for chemistry education. Paper presented at the Fifth International History, Philosophy and Science Teaching Conference. Pavia, Italy [ERIC Document Reproduction Service No. ED434811]

Nagy, K., Collins, A., Duschl, R., & Erduran, S. (1999, March). Changes in science teachers' practice and beliefs: Progress toward implementing standards-based reforms. Paper presented at the annual conference of the National Association for Research in Science Teaching, Boston. [ERIC Document Reproduction Service No. ED443697]

Duschl, R., Ellenbogen, K., & Erduran, S. (1999, March). Promoting argumentation in middle school science classrooms: A Project SEPIA evaluation. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston [ERIC Document Reproduction Service No.ED453050]

Ellenbogen, K. M., Duschl, R., & Erduran, S (1999). Middle school students' dialogic argumentation. In, M. Komorek et al (Eds.), <u>Research in science education: Past, present and future,</u> Proceedings of the 2<sup>nd</sup> International Conference of the European Science Education Research Association, Kiel,1(2), 420-422.

Erduran, S. (1998, April). Modeling in chemistry as cultural practice: A theoretical framework with implications for chemistry education. Paper presented at the annual meeting of the American Educational Research Association. San Diego. [ERIC Document Reproduction Service No. ED420507]

Erduran, S., & Duschl, R. A. (1998, January). The *Acids and Bases Curriculum*: A context for teaching the particulate nature of matter and changes in matter. In, Rubba, P., & James, A. (Eds.), Proceedings of the Annual International Conference of the Association for the Education of Teachers in Science, Minneapolis, MN. [ERIC Document Reproduction Service No. ED421363]

Erduran, S. (1998). Sir Alan Lloyd Hodgkin. <u>Biographical Encyclopaedia of Scientists</u>. pp. 629-631. New York: Marshall Cavendish Corp.

Erduran, S. (1997). Reflections on the proceedings from HPSST conferences: A profile of papers on chemistry education. In, I. Winchester (Ed.), Proceedings of International History, Philosophy and Science Teaching Group North and South America Regional Conference. Calgary: University of Calgary, CD-rom.

Erduran, S. (1996, April). Analysis of physical science textbooks for conceptual frameworks on acids, bases and neutralization: Implications for students' conceptual understanding. Paper presented at the annual meeting of the American Educational Research Association, New York. [ERIC Document Reproduction Service No. ED395791]

Erduran, S. (1996, April). Reflections on Turkish Cypriot and Greek Cypriot students' perceptions of the Cyprus conflict: Implications for peace education. Paper presented at the annual meeting of the <u>American Educational Research Association</u>, New York. [In press by ERIC Document Reproduction Service No. ED427985]

Erduran, S. (1995). Science or pseudoscience: Does science education demarcate? The case of chemistry and alchemy in teaching. In, F. Finley, D. Allchin, D. Rhees, & S. Fifield (Eds.), <u>Proceedings of the Third International History</u>, <u>Philosophy and Science Teaching Conference</u>, Vol. 1, pp. 348-354. Minneapolis: University of Minnesota.

Erduran, S. & Duschl, R.A. (1995, April). Using portfolios to assess students' conceptual understanding of flotation and buoyancy. Paper presented at the annual meeting of the American Educational Research Association, San Francisco. [ERIC Document Reproduction Service No. ED385492]

# **MEDIA COVERAGE**

## UNIBO Magazine, September 9<sup>th</sup>, 2021

https://magazine.unibo.it/archivio/2021/09/09/andri-snaer-magnason-a-bologna-per-il-201ctaglio-del-nastro201d-del-progetto-fedora?fbclid=lwAR01YIcCAtiTT-FAnuEsbHeNbRxYDez236Wp7Or dwnlnC5w3LP9bwc4Qbw

## FEDORA Project, September 1st, 2021

https://www.fedora-project.eu/save-the-date-fedora-launches-event-with-writer-andri-snaer-magnason/

### Crossword, St Cross Magazine, June 2021

https://issuu.com/ellab2/docs/crossword magazine 2021-for web

## Titan Magazine, University of Oslo, January 13th, 2020

https://titan.uio.no/node/3570

## Beijing Normal University, November 15th, 2019

https://fe.bnu.edu.cn/html/002/1/201911/40045.shtml

## Irish Independent newspaper, July 1st, 2019

https://www.independent.ie/irish-news/education/women-feel-inferior-and-less-suited-to-stem-jobs-than-men-38268279.html

## ESERA Conference in University of Limerick website, August 2017

https://www.ul.ie/news-centre/news/ul-co-hosts-european-science-education-research-conference/

#### National Newspaper in Taiwan, July 2017

https://udn.com/news/story/6928/2552259

#### Tokyo University of Science and Technology, October 2016

https://oae.tus.ac.jp/mse/wp-content/uploads/2016/10/fca56c7bbce7fbc48057e9c6ef435d22.pdf

## Newsletter of East Asian Association for Science Education, September 2016

http://new.theease.org/read.php?bdid=2&page=1&msid=235&st=

#### Irish Times, February 9, 2016

http://www.irishtimes.com/news/education/there-s-an-image-problem-the-drive-to-attract-girls-to-stem-1.2522659

#### **Limerick HR News Issue 8 Summer 2015**

Profile and interview, page 2

### Limerick Post, May 15, 2015

Kathy Masterson, Two pints of science and a packet of crisps http://www.limerickpost.ie/2015/05/15/two-pints-of-science-and-a-packet-of-crisps/

### Limerick Leader, May 14, 2015

Anne Sheridan, Researchers bring a pint of science to Limerick pubs http://www.limerickleader.ie/news/local-news/researchers-bring-a-pint-of-science-to-limerick-pubs-1-6740804

#### Irish Independent Newspaper, September 11, 2014

Graham Clifford, How canoeists and a diver can make science more appealing http://www.independent.ie/irish-news/education/how-canoeists-and-a-diver-can-make-science-more-appealing-30574468.html

## **NISE Singapore Plenary**

http://www.nie.edu.sg/nienews/mar15/?q=contents%2Fpushing\_boundaries

## **S-TEAM Project**

http://vimeo.com/40158222

#### **SAARMSTE PhD School**

http://www.coe.uga.edu/news/2013/07/15/grad-students-participate-in-southern-africa-research-school/

### Plenary at IDEAL Conference

- a. YouTube Video: http://www.youtube.com/watch?v=pbZV1Ped54U
- b. Newspaper coverage:

http://www.bayburtgundem.com/egitkultur/bayburtta-4-gun-surecek-konferansin-1-gunu-3-sunumla-basladi-h1190.html

http://www.bayburtmedya.com/index.php/bmgundem/item/683-bayburt-üniversitesindedüzenlenen-ideal-konferans-sona-erdi

http://www.haberfx.net/bayburt-universitesinin-duzenledigi-ideal-konferansi-sona-erdi-haberi-543845/

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http://www.beyazgazete.com/haber/2012/7/3/1-uluslararasi-dinamik-acinsayarak-ve-etkili-ogrenme-konferansi-1284210.html

http://www.haberflash.com/BAYBURT-UNIVERSITESININ-DUZENLEDIGI-IDEAL-KONFERANSI-SONA-ERDI-31061.html

## **INVITED KEYNOTE LECTURES**

Erduran, S. (2022, June). Framing constructive interdisciplinary discussions between science and religious education: Insights from the OARS Project. Transforming Interdisciplinary Learning through Epistemically Insightful Curricula Conference, St Mary's University, Twickenham, UK.

Wooding, S., & Erduran, S. (2022, February). Practical science: what is it for anyway? ASE Conference, Sheffield Hallam University, UK (online).

Erduran, S. (2021, November). How can science education prepare students and teachers for the future? The role of epistemic practices of science in education. 12th Pan-Hellenic Conference on

Science Education and Educational Technology, University of Athens, Greece. (online)

Erduran, S. (2021, October). Future-oriented vision for science education based on epistemic practices, <u>3rd International Conference on Science, Mathematics, Entrepreneurship and Technology Education</u>, Turkey. Online. (https://www.youtube.com/watch?v=QnS4ENZYSxc)

Erduran, S. (2021, February). Navigating Evidence in the Age of Misinformation: The Importance of Teaching and Learning Argumentation in STEM Education. XXI International Congress for Educators (CIE), Universidad Peruana de Ciencias Aplicadas (UPC University), Peru. Online.

Erduran, S. (2021, January). What does research tell us about practical work in science? <u>Association</u> for Science Education, UK. Online.

Erduran, S. (2020, November). The Importance of Evidence-based Reasoning in Education. <u>Yarinin</u> Egitimi Zirvesi, Istanbul, Turkey.

Erduran, S. (2020, August). <u>XIX Reunión de Educadores en la Química – XIX Chemistry Educators Meeting (REQ XIX)</u>, Posadas City, Argentina. Online.

Erduran, S. (2020, February). Promoting 21<sup>st</sup> Century Skills in STEM education: The Case of Argumentation in Science Education. <u>Annual Research and Innovation Conference</u>, United Arab Emirates University, Al Ain, UAE. Online.

Erduran, S. (2019, October). Challenges and possibilities in integrated STEM education: Establishing the role of argumentation. <u>Forum on STEM Education</u>, Chinese Academy of Sciences, Beijing, China.

Erduran, S. (2019, October). Understanding the 'how' and 'why' of scientific claims as a component of scientific literacy. <u>Alliance of Improving Scientific Literacy for All Students (AISL) Conference</u>, Beijing, China.

Erduran, S. (2019, October). Argumentation and Interdisciplinarity: Reflections from the *Oxford Argumentation in Religion and Science* Project. <u>Disciplinary and Interdisciplinary Science Education Research Forum</u>, Beijing Normal University, China.

Erduran, S. (2019, July). Making chemistry education scientific: Investigating the role of argumentation in chemistry teaching and learning. IUPAC International Conference, Paris, France.

Erduran, S. (2019, February). Your thesis as an argument: how are you justifying your claims? <u>REASON Winter Doctoral School</u>, Munich, Germany.

Erduran, S. (2019, January). How to make epistemic processes and products of science visible to pre-service teachers. <u>Learning Sciences Conference</u>, Technion, Israel.

Erduran, S. (2016, January). From fragments to wholes in school chemistry: Promoting holistic

nature of chemistry in chemical education. CERG Lecture at <u>Association for Science Education</u> <u>Annual Conference</u>, Birmingham, UK.

Erduran, S. (2015, November). What is science anyway and how can we structure the curriculum to teach it? <u>International Science Teaching Conference</u>, Singapore.

Erduran, S. (2015, September). Visualising the Nature of Science: Fragments to Holistic Images in Science Education, <u>European Science Education Research Association Conference</u>, Helsinki, Finland.

Erduran, S. (2015, September). The Case for Increasing the Concentration of the Epistemic Nature of Chemistry in Education, 4<sup>th</sup> National Chemical Education Conference, Balikesir, Turkey.

Erduran, S. (2014, November). From Lists in Pieces to Coherent Wholes: Revisiting the Nature of Science in Science Education International Science Education Conference, Singapore.

Erduran, S. (2014, July). Nature of Chemistry Revisited: Reconceptualizing the Nature of Chemistry in Chemical Education, <u>European Conference on Research in Chemistry Education</u>, Jyväskylä, Finland.

Erduran, S. (2014, May). Revisiting the Nature of Science in Science Education: Towards a Holistic Account of Science in Science Teaching and Learning. <u>Frontiers in Mathematics and Science Education Conference</u>, Famagusta, Cyprus.

Erduran, S. (2013, October). Beyond nature of science: reconceptualising science for science education. IOSTE Eurasia Regional Symposium, Antalya, Turkey.

Erduran, S. (2013, September). Epistemic and Communication Practices in Science: Highlighting the Role of Evidence in Science Education. Keynote Presentation at 19. <u>Internationale Tagung der Fachsektion Didaktik der Biologie</u>, Kassel, Germany.

Erduran, S. (2013, August). Are chemical education and philosophy of chemistry miscible? The case for infusing epistemic practices of chemistry in chemical education <u>44th IUPAC World Chemistry Congress</u>, Istanbul, Turkey.

Erduran, S. (2013, July). Nature of science and science education: missing connections and potential interdisciplinary links. World Congress of New Trends in Science Education, Krakow, Poland.

Erduran, S. (2012, October). Beyond linguistics accounts of argument: establishing the role of visual epistemic objects in the construction of arguments.  $5^{th}$  Conference of Biology Teaching. Cordoba, Argentina.

Erduran, S. (2012, August). Cocktail of food science and argumentation: shaken or stirred for learning? <u>International Symposium on Science Education</u>: <u>Molecular Gastronomy in Science Education</u>, LUMA Centre, Helsinki, Finland.

Erduran, S. (2012, July). Visual practices and epistemic objects in scientific practices: the missing link and the role of new technologies in meeting the learning challenge. <u>International Dynamic, Exploratory and Active Learning Conference</u>, Bayburt University, Turkey.

Erduran, S. (2012, March). To believe or not to believe? The role of evidence-based reasoning in science education, Keynote Lecture at <u>International Conference on Interdisciplinary Research in Education</u>, Famagusta, Cyprus.

Erduran, S. (2011, December). Argumentation in science education: perspectives on research, policy and practice. <u>Turkish Chemical Society</u> International Year of Chemistry Symposium, Istanbul, Turkey.

Erduran, S. (2011, February). Talking Science in the Classroom: Contributions from Research on Argumentation, <u>Korean Association for Science Education</u>, Jeju University, Korea.

Erduran, S. (2010, January). Philosophy of chemistry in chemical education: recent developments and future directions. Chemical Education Conference, <u>Universitat Autonoma Nacional de Mexico</u>, Mexico.

Erduran, S. (2009, September). Scientific literacy in Europe: Perspectives from England, Denmark and Hungary. <u>VIII Congreso Internacional sobre Investigación en Didáctica de las Ciencias</u>, Barcelona, Spain.

Erduran, S. (2009, May). Science teacher education: innovation and boundary crossing. Plenary lecture at <u>CROSSNET Conference</u>, Vienna, Austria.

Erduran, S. (2008, August). Evidence-based reasoning in school science: perspectives from research on argumentation in science classrooms. Plenary talk at the <u>National Science and Mathematics Education Conference</u>, Bolu, Turkey.

Erduran, S. (2008, May). Using evidence to make justified conclusions: Role of argument in science teaching and learning. Plenary talk at the <u>South African Association for Science and Technology Educators</u>, University of Witwatersrand, Johannesburg, South Africa.

Erduran, S. (2007, November). Making science education more scientific: investigations into the role of argumentation. <u>Science and Mathematics Educators Conference</u>. Beirut: American University of Beirut, Lebanon.

Erduran, S. (2006, July). Researching the teaching and learning of argumentation in secondary science classrooms. International Workshop on Argumentation in Science Education, <u>National Taiwan Normal University</u>, Taipei, Taiwan.

Erduran, S. (2006, January). Fuming with reason: toward research-based professional development to support the teaching and learning of argumentation in science. <u>South African Association for</u> Research in Science, Mathematics and Technology Education, University of Pretoria, South Africa.

## **INVITED LECTURES**

Erduran, S. (2022, May). Argumentation in Science and Religion: What does Educational Research Have to Say? Centre for Educational Neuroscience, <u>Birkbeck University of London</u>, UK.

Erduran, S., & Ioannidou, O. (2022, February). Cultivating joy and engagement in math and science for preschool agsed children. <u>Expo2020 Dubai</u>, United Arab Emirates.

Erduran, S. (2022, February). Beyond mindless procedures in practical science: empowering pupils through future-oriented science education. <u>University of Southampton</u>, UK.

Erduran, S., & Ioannidou, O. (2022, January). What is science anyway and how should we teach it? <u>United Arab Emirates University</u>, UAE.

Erduran, S., Haddley, J., Kimchuk, A., Krmpotic, L. (2021, December). How is learning and development in STEM education evolving? Panel discussion chaired by Ashton Wenborn, organised by <u>Times Higher Education in partnership with DigitalEd</u>. Online.

Erduran, S. (2021, November). Career development in science education. Institute of Education, University College London, UK.

Erduran, S. (2021, October). Teaching and learning of science and religion in schools: Perspectivesfrom research on argumentation. The Faraday Institute, London, UK.

Erduran, S. (2021, September). Contextualising future-oriented science education research. FEDORA Event. University of Bologna, Italy.

Erduran, S. (2021, August). Oxford Prospects and Global Development Institute (OPGDI) based in Regent's Park College, University of Oxford, UK.

Erduran, S. (2021, June). Preparing publications for submission to STEM education research journals. Presentation at <u>University of Exeter</u>, UK.

Erduran, S. (2021, March). Challenging Misinformation in the Pandemic Era: The Role of Teaching and Learning of Science through Argumentation. Presentation at <u>Arabic College of Haifa</u>, Israel.

Erduran, S. (2021, January). Argumentation at the interface of science and religious education. Presentation at <u>Edge Hill University</u>, UK.

https://figshare.edgehill.ac.uk/articles/media/Argumentation\_at\_the\_Interface\_of\_Science\_and\_R E/13614407

Erduran, S., & Evagorou, M. (2020, November). Argumentation in scientific and interdisciplinary contexts: Perspectives from teaching and learning. <u>CRITHISE Project Conference</u>, Trondheim, Norway.

Erduran, S. (2020, November). Research on critical thinking and argumentation in science education. Presentation at National Network for Education in Natural Science, Hell, Norway.

Erduran, S. (2020, February). Beyond the cookbook approach to practical science: Designing "tests worth teaching to". Presentation at the Royal Society of Chemistry, London, UK.

Erduran, S. (2019, November). Argumentation for Critical Thinking in the Context of Science Education. Presentation and web-seminar at Norwegian Centre for Science Education, University of Oslo, Norway.

Erduran, S. (2019, July). Reflections from the Editors of *Science & Education* Journal on research on History, Philosophy and Sociology of Science. <u>International History, Philosophy and Science</u> Teaching Conference, Aristotle University of Thessaloniki, Greece.

Erduran, S. (2019, June). Oxford Argumentation in Religion and Science Project. Presentation at the Norwegian Centre for Science Education, University of Oslo, Norway.

Erduran, S. (2019, May). Argumentation in Teaching and Learning: Reflections from the *Oxford Argumentation in Religion and Science* Project. College of Teacher Education, <u>Zhejiang Normal University</u>, China.

Erduran, S. (2019, April). Research and development on argumentation: interdisciplinary reflections from the OARS Project, <u>University of York</u>, UK.

Erduran, S. (2019, February). Visualising epistemic processes and products of science in pre-service teacher education, University of Nottingham, UK.

Erduran, S. (2018, June). Research methodologies in science education. IV International Symposium of Science Teaching, Universidade de Vigo, Spain.

Erduran, S. (July, 2017). Nature of Science Revisited: Theoretical and Empirical Considerations for Science Education. Presentation at National Chiayi University, Taiwan.

Erduran, S. (June, 2017). Making nature of science holistic and visual in pre-service science education. International Conference on Glocalization in Science Education, <u>National Taiwan Normal University</u>, Taiwan.

Erduran, S. (June, 2017). Your thesis as an argument: how are you justifying your claims? Presentation at the NARST Sandra K. Abell Research Institute for Doctoral Students, Taipei, Taiwan.

Erduran, S. (2017, April). Comparative research on argumentation in science education. Presidential Address Panel Presentation at Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, TX, USA.

Erduran, S. (2017, April). Future directions for research on nature of science in science education. Bogazici University, Turkey.

Erduran, S. (2016, July). From theory to practice: transforming research on nature of science for educational practice. Invited presentation at the <u>Ministry of Science and Technology</u>, Taipei, Taiwan.

Erduran, S. (2016, April). A new perspective on nature of science in science education: The rationale and implications of the Family Resemblance Approach. <u>Gaziosmanpasa University</u>, Turkey. (Presentation via videolink).

Dagher, Z., Erduran, S., & Kaya, E. (2015, November). From scientific inquiry to scientific practices: Redefining teaching and learning of science. Team presentation at Faculty of Education, <u>American University of Beirut</u>, Lebanon.

Erduran, S. (2014, October). Nature of Science Revisited: Towards a Holistic Account of Nature of Science in Science Education. Presentation at <u>Homi Bhabha Centre for Science Education: Tata Intitute of Fundamental Research</u>, Mumbai, India.

Erduran, S. (2014, October). Research and development on argumentation in science education. Presentation at Department of Biological Sciences, <u>University of Regensburg</u>, Germany.

Erduran, S. (2014, September). A new direction for Nature of Science studies in science education. Presentation at <u>Middle East Technical University</u>, Ankara, Turkey.

Erduran, S., Mugaloglu, E., Saribas, D., Kaya, E., Ceyhan, G., & Dagher, Z. (2014, June). From pieces to wholes: reconceptualising the teaching and learning of scientific practices and implications for teacher development. <u>Bogazici University</u>, Istanbul, Turkey.

Erduran, S., Kaya, E., & Cetin, P. S. (June, 2014). Pre-Service Science Teachers' Understanding and Evaluation of Arguments. <u>University of Rwanda</u>, College of Education, Rwanda.

Erduran, S. (2014, January). No Argument, no science: Beyond dogma towards scientific argumentation in teaching and learning. Faculty of Education, <u>Bahcesehir University</u>, Istanbul, Turkey.

Erduran, S. (2013, November). From dogma to reason: research and development on

argumentation in science education. Faculty of Education, <u>Bogazici University</u>, Istanbul, Turkey.

Erduran, S. (2013, October). Academic writing for publication. <u>IOSTE Eurasia Regional Conference</u>, Antalya, Turkey.

Erduran, S. (2013, August). Innovation in chemistry teaching and learning. Expert Panel Symposium. Invited Symposium at 44th IUPAC World Chemistry Congress, Istanbul, Turkey.

Erduran, S. (2013, June). Revisiting Nature of Science: The Role of Interdisciplinarity in Science Education. Invited Presentation at the First <u>Turkish Science Education and Research Association PhD</u> School, Canakkale, Turkey.

Erduran, S. (2013, February). Visualisation in science education. <u>Kristianstad University</u>, Sweden.

Erduran, S. (2012, October). Debunking folk myths on food: incorporating argumentation in the context of food science education, University of Georgia, Athens, USA.

Erduran, S. (2012, June). Visualising evidence and scientific methods: examples from history of science and contempory scientific practices. Marang Centre, <u>Witwatersrand University</u>, Jonannesburg, South Africa.

Erduran, S. (2012, March). Junior Faculty Discussion Panel, <u>NARST Conference</u>, Indianapolis, USA.

Erduran, S. (2012, February). Taking stock of argument: research trends in argumentation in science education. <u>University of Exeter</u>, UK.

Erduran, S. (2012, February). Future Directions for Research on Argumentation in Science Education: The Case of Visualisation, <u>Kristianstad University</u>, Sweden.

Erduran, S. (2012, February). Recent Trends in Science Education Research: The Role of Argumentation, Kristianstad University, Sweden.

Erduran, S. (2011, December). Fen egitiminde argumentasyonun yeri, <u>Marmara University</u>, Istanbul, Turkey.

Erduran, S. (2011, October). Modeling Epistemic Practices in Science Teachers' Learning: The Case of Argumentation. Invited talk at <u>Pennsylvania State University</u>, USA.

Erduran, S. (2011, October). 'Seeing' Science: The Role of Visualization in Scientific Practices and Implications for Science Education. Invited talk at University of Delaware, USA.

Erduran, S. (2011, June). Talking science: recent trends in research and development on argumentation in science education. Invited talk at University of Hong Kong, Hong Kong.

Erduran, S. (2011, February). Integrating Epistemic Practices of Science in Classroom Cultures: Theoretical Foundations and Empirical Examples, Seoul National University, Korea.

Erduran, S., & Evagorou, M. (2010, July). Argumentation in science education: theoretical, methodological and empirical perspectives. <u>National Normal Taiwan University</u>, Taipei, Taiwan.

Erduran, S. (2009, September). Minding gaps in argumentation: bridging policy, research and practice. Presentation at <u>University of Gothenburg</u>, Sweden.

Duschl, R., Jimenez-Aleixandre, M. P., & Erduran, S. (2009, August). Epistemic foundations for conceptual change. Presentation at the Symposium titled "Students' Conceptions in Science: Investigating Ideas, Activities and Interactions", Yeditepe University, Istanbul, Turkey.

Erduran, S. (2009, June). Methodological issues in the study of argumentation. Invited presentation at Durham University, UK.

Erduran, S. (2009, February). Establishing coherence between research, policy and practice of science education: The case of argumentation. Invited talk at <u>University of Barcelona</u>, Spain.

Erduran, S. (2008, November). Appeal to reason, appeal of reason: Fostering argument in science education. Invited talk at the <u>Nordic-Baltic Doctoral School</u>, Gothenburg, Sweden.

Erduran, S. (2008, August). International perspectives on research and development in science education. Presentation at <u>Bogazici University</u>, Istanbul, Turkey.

Erduran, S. (2008, May). Argumentation in teaching and learning. Presentation at <u>University of Witwaterstrand</u>, Johannesburg, South Africa.

Erduran, S. (2007, December). Methodological foundations of the study of argumentation in science classrooms. Catalonian Science and Mathematics Education Doctoral School, <u>Autonoma Universidad de Barcelona</u>, Spain.

Erduran, S. (2007, October). Science Learning. Kaleidoscope Legacy Seminar, Santiago de Compostela, Spain.

Erduran, S. (2006, August). Supporting teachers' professional development in ideas, evidence and argument in science. National Kaohsiung Normal University, Taiwan.

Erduran, S. (2006, June). Interdisciplinary studies in chemical education research. Research in Chemical Education Conference, 18<sup>th</sup> Conference on Research in Chemical Education, <u>University of Bremen</u>, Germany.

Erduran, S. (2006, January). Ideas, evidence and argument in science education. <u>University of Limpopo</u>, Polokwane, South Africa.

Erduran, S. (2006, January). Ideas, evidence and argument in science education. <u>Nelson Mandela Metropolitan University</u>, Port Elizabeth, South Africa.

Erduran, S. (2005, October). Research in the teaching and learning of scientific argumentation. <u>University of Leeds</u>, UK.

Erduran, S. (2004, July). Continuing professional development in scientific argumentation. Gatsby Foundation Conference, <u>University of Warwick</u>, Warwick, UK.

Erduran, S. (2004, June). Revisiting argumentation: Towards an research agenda in argumentation studies in science education. Presentation at <u>University of Santiago de Compostela</u>, Spain.

Osborne, J., Erduran, S., & Simon, S. (2004, March). Ideas, Evidence and Argument in Science. Launch of training pack. Nuffield Foundation, London, UK.

Erduran, S. (2004, February). Nurturing the teaching and learning of argumentation in science. Department of Education, University of Delaware, Newark, USA.

Erduran, S. (2004, February). Nurturing the teaching and learning of argumentation in science. Graduate School of Education, University of Pennsylvania, Philadelphia, USA.

Erduran, S. (2003, December). The role of argumentation in improving chemical education. Presentation at the Center for Science Teaching, Weizmann Institute of Science, Rehovot, Israel.

Erduran, S. (2003, October). Ideas, Evidence and Argument in Science Education. Presentation at Homerton College, <u>University of Cambridge</u>, Cambridge, UK.

Erduran, S. (2003, June). Epistemological perspectives in chemical education research: The case of arguments and models. Presentation at ZDNS Zentrum fur Didaktik der Natur und Sozialwissenschaften, Universitat Hannover, Hannover, Germany.

Erduran, S. (2003, April). Contributions of philosophy of chemistry to chemical education research: The case of curriculum design and implementation. Presentation at the "Research in chemical education: New curricula, new strategies" seminar held at the Departament de Didàctica de les Matemàtiques i de les Ciències Experimentals of the <u>Universitat Autònoma de Barcelona</u>, Bellaterra, Spain.

Erduran, S. (2002, November). Research in active learning strategies: Learning how to argue scientifically. Presentation at the School of Education, Kenyatta University, Nairobi, Kenya.

Osborne, J., Erduran, S., & Simon, S. (2002, September). Promoting argument and discourse in the classroom: An empirical study. Paper presented at the conference titled "Ontological,

Epistemological, Linguistic and Pedagogical Considerations of Language and Science Literacy: Empowering Research and Informing Instruction," <u>University of Victoria</u>, Victoria, Canada.

Erduran, S. (2002, April). Use of videotape data in tracing argumentation discourse in science classrooms. Presentation at the Conference on Videotaped Data in Educational Research, Computers and Learning Research Group, <u>Open University</u>, Milton Keynes, UK.

Erduran, S. (2001, March). Teaching and learning of models in science. Presentation at the School of Education, University of Massachusetts, Boston, USA.

Erduran, S. (2000, October). Promoting scientific argumentation in the classroom: Reflections from Project EQuASS. Presentation at the Departament de Didàctica de les Matemàtiques i de les Ciències Experimentals of the <u>Universitat Autònoma de Barcelona</u>, Barcelona, Spain.

Osborne, J., Erduran, S., Simon, S., & Monk, M. (2000, June). Enhancing argumentation in the classroom. Presentation at <u>British Society for the History of Science Conference titled Science</u>, Education, Communication and History of Science, London, UK.

Erduran, S. (2000, March). Designing learning environments to nurture growth of chemical knowledge through modeling. Paper presented at Modeling in Chemical Education Conference, <u>University of Reading</u>, Reading, UK.

Erduran, S. (1999, November). Merging curriculum design with chemical epistemology: Teaching and learning of chemistry through modeling. Presentation at the Models in Science and Technology: Research in Education Group, Department of Education, <u>University of Reading</u>, Reading, UK.

Duschl, R., Ellenbogen, K., & Erduran, S. (1999, November). Understanding dialogic argumentation. Institute of Education Seminar Series, <u>University of London</u>, London, UK.

## **WEBCASTS, PODCASTS & BLOGS**

Erduran, S., Guilfoyle, L., Reiss, M. & Skirmutt, E. (2021, February). Science education and COVID-19. Panel discussion podcast for the Centre for Skills, Knowledge, and Organisational Performance, University of Oxford, UK. https://share.transistor.fm/s/be36bd51

Erduran, S., Childs, A., & Baird, J. (2020). Practical science and pandemics. BERA Blogs.https://www.bera.ac.uk/blog/practical-science-and-pandemics

Erduran, S. (2020). St Cross Shorts Podcast. https://podcasts.ox.ac.uk/sibel-erduran

Erduran, S. (2019). Your thesis as an argument: How are you justifying your claims? Keynote presentation at REASON Winter Doctoral School, Munich, Germany. http://www.en.mcls.uni-muenchen.de/study\_programs/reason/events/winterschool2019/keynotes/index.html

Erduran, S., Childs, A., & Cullinane, A. (2019). Teachers' professional development on summative assessment of practical science: perspectives from Project Calibrate. Department of Education, University of Oxford, 28 January. https://podcasts.ox.ac.uk/teachers-professional-development-summative-assessment-practical-science-perspectives

Erduran, S. (2014). Education with a big 'E' in STEM Education. University of Limerick, Ireland. https://ulris.ul.ie/live/!W\_VA\_CV\_BUILDER.SHOW\_all?user=sibel.erduran@ul.ie

Erduran, S. (2011). "Seeing Science": The Role of Visualisation in Scientific Practices and Implications for Science Education. PODCAST, University of Delaware, USA, October 27.

Erduran, S. (2011). Modelling Epistemic Practices of Science in Teachers' Learning: The Case of Argumentation, WEBCAST: Waterbury Lecture at Pennsylvania State University, PA, USA. October 24.

Erduran, S. (2011). Talking science: recent trends in research and development on argumentation in science education. Invited talk at University of Hong. PODCAST, Kong.http://broadway.edu.hku.hk/conference/20110607/20110607\_Prof\_S\_Erduran.wmv, 2011.

# **CONFERENCE PRESENTATIONS (REFEREED)**

Erduran, S., & Chan, J. (2022, November). Interdisciplinarity for future-oriented education: Insight from Educational Research in England. Presentation at the <u>15th Annual International</u> Conference of Education, Research and Innovation, Seville, Spain.

Ioannidou, O., Takriti, R., Erduran, S., Alhosani, N., Tairab, H., Elhoweris, H., Schofield, L., Rabbani, L., Al Amirah, I. (2022, September). The 'SciKids' Project – Understanding how science works in early years education in the UAE. <u>British Educational Research Association</u>, Liverpool, UK.

Smith, K., Hillier, J., & Erduran, S. (2022, August). An Ounce of Experience: Investigating the Relationship between Years of Experience and Teacher Self-Efficacy and Feeling Out-of-Field. <u>European Conference of Educational Research</u>. Yerevan, Armenia.

Smith, K., Hillier, J., & Erduran, S. (2022, July). Examining the relationship between teacher self-efficacy and teaching out-of-field in physics. GIREP Conference. Ljubljana, Slovenia.

Erduran, S., & Ioannidou, O. (2022, July). Understanding diversity of scientific methods: The impact of an online intervention on secondary students. <u>International History, Philosophy and Science</u> Teaching Conference, Calgary, Canada.

Chan, J., & Erduran, S. (2022, April). The Impact of Interdisciplinary Collaboration on Science and Religious Studies Teachers' Views of Argumentation. Presentation at the <u>American Educational Research Association Conference</u>, San Diego, USA. https://vimeo.com/702148535/96cf4437ad

Park, W., Erduran, S., Song, J., & Kongju, M. K. (2022, April). It's a lesson with no answer!": Understanding preservice teachers' lesson development using history of science. Presentation at the NARST Annual Conference, Vancouver, Canada.

Takriti, R., Tairab, H. H., Erduran, S., Kaya, E., Alhosani, N., Rabbani, L. M., & Al Amirah, I. (2022, April). Adaptation and Validation of a Questionnaire for Measuring Teachers' Views on Nature of Science. Presentation at the <u>NARST Annual Conference</u>, Vancouver, Canada.

Smith, K., Hillier, J., & Erduran, S. (2022, April). A Physics Case Study for Why Teachers Feel In- or Out-of-Field: Looking Beyond Educational Background. Presentation at the <u>NARST Annual</u> Conference, Vancouver, Canada.

Akis, A. P., & Erduran, S. (2021, October). Extended reality and chemistry education research. <u>3rd International Conference on Science, Mathematics, Entrepreneurship and Technology Education, Turkey.</u> Online.

Erduran, S., Ioannidou, O., Guilfoyle, L., Cullinane, A., Hillier, J., & Childs, A. (2021, September). Science Education for Deep Learning: Engaging Teachers and Pupils in Diversity of Methods and Evidence-Based Reasoning in Science. Presentation at the Annual Conference of the <u>British</u> Educational Research Association, Online.

Godfrey, H., & Erduran, S. (2021, August). Argumentation and intellectual humility in secondary science students' discussions. Presentation at the Biennial Conference of the <u>European Science Education Research Association</u>, Minho, Portugal. Online.

El Masri, Y., Ioannidou, O., & Erduran, S. (2021, August). Designing practical science assessments worth teaching. Presentation at the Biennial Conference of the <u>European Science Education</u> <u>Research Association</u>, Minho, Portugal. Online.

Park, S., Erduran, S., & Hillier, J. (2021, August). Science teachers' views and enactments of summative assessment of nature of science in the classroom. Presentation at the Biennial Conference of the <u>European Science Education Research Association</u>, Minho, Portugal. Online.

Ioannidou, O., Erduran, S., & Baird, J. (2021, August). Understanding diversity of scientific methods: the impact of an online intervention on secondary students. Presentation at the Biennial Conference of the European Science Education Research Association, Minho, Portugal. Online.

Park, W., Erduran, S., & Guilfoyle, L. (2021, August). Instructional practices on argumentation in science and religious education lessons: a case study in England. Presentation at the Biennial Conference of the <u>European Science Education Research Association</u>, Minho, Portugal. Online.

Smith, K., Hillier, J., & Erduran, S. (2021, May). Teacher self-efficacy as a window into teachers' experiences of teaching out-of-field: framing the problem. Presentation at the <u>Yidan Doctoral Conference</u>, University of Oxford. Online.

Aksoz, B., Kaya, E., & Erduran, S. (2021, August). How do science teachers from different career stages perceive the nature of science? Presentation at the Biennial Conference of the <u>European Science Education Research Association</u>, Minho, Portugal. Online.

Guilfoyle, L., & Erduran, S. (2021, April). Exploring school students' ability to recognise warrants in interdisciplinary argumentation between science and religious education. Presentation at the annual conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research. Online.

Cullinane, A., Caramaschi, M., Levrini, O., & Erduran, S. (2021, April). Exploring the nature of science in the Italian physics curriculum. Presentation at the annual conference of <u>NARST: A Worldwide</u> Association for Improving Science Teaching and Learning through Research. Online.

Park, W., Erduran, S., & Hillier, J. (2021, April). Formative assessment of nature of science in a Grade 10 lesson on paradigm shift. Presentation at the annual conference of <u>NARST: A Worldwide</u> Association for Improving Science Teaching and Learning through Research. Online.

Cullinane, A., Ioannidou, O., & Erduran, S. (2020, December). Brandon's Matrix: A view on scientific methods in biology classrooms. <u>The International Society for the History, Philosophy & Social Studies of Biology</u>. Dublin City University, Ireland.

Erduran, S., Guilfoyle, L., & Park, W. (2020, June). Investigating science and religious education teachers' perceptions of argumentation. Paper presented at the <u>Australian Science Education</u> Research Association Virtual Conference.

Guilfoyle, L., Park, W., & Erduran, S. (2020, June). Science and Religious Education Teachers' Views of the Comparison of Argumentation in Science and Religion. Paper presented at the <u>Australian Science Education Research Association Virtual Conference</u>.

Park, W., Erduran, S., & Guilfoyle, L. (2020, June). Cross-subject collaboration about argumentation between science and religious education teachers in England: A case study. Paper presented at the Australian Science Education Research Association Virtual Conference.

Erduran, S. (2020, June). Navigating science and religious education through argumentation: Lessons learned from the *Oxford Argumentation in Religious and Science Education* Project. Epistemic Insight Conference, Online.

Erduran, S., Ioannidou, O., & Cullinane, A. (2020, January). Project Calibrate: Enhancing Summative Assessment of Practical Science. <u>Association for Science Education Annual Conference</u>, Reading, UK.

Guilfoyle, L., McCormack, O., & Erduran, S. (2019, September). Tipping points: the epistemic beliefs facilitating the theory-practice divide. Presentation at the <u>European Conference of Educational</u> Research, Hamburg, Germany.

Erduran, S., & Kaya, E. (2019, August). Epistemic core of chemistry in teacher education: practical approaches and empirical evidence. Presentation at the <u>European Science Education Research Association</u> Conference, Bologna, Italy.

Park, W., Song, J., & Erduran, S. (2019, August). Exploring pre-service teachers' collaborative development of history of science-based lessons. Presentation at the <u>European Science Education</u> Research Association Conference, Bologna, Italy.

Anuar, A. M., Erduran, S., & Chankseliani, M. (2019, August). A framework for studying rural young people's STEM education, aspirations and 'Science-for-Development'. Presentation at the <u>European Science Education Research Association Conference</u>, Bologna, Italy.

Wu, J. Y., & Erduran, S. (2019, August). Scientists' perceptions of the nature of science: an investigation based on the Family Resemblance Approach. Presentation at the <u>European Science Education Research Association</u> Conference, Bologna, Italy.

Park, W., Wu, J. Y., & Erduran, S. (2019, August). Investigating the nature of STEM: analysis of curriculum documents from the USA, Korea and Taiwan using the Family Resemblance Approach. Presentation at the European Science Education Research Association Conference, Bologna, Italy.

Aksoz, B., Kaya, E., Erduran, S., Akgun, S., & Cilekrenkli, A. (2019, August). Pre-service science teachers' perceptions of nature of science: A focus group discussion. Presentation at the <u>European Science Education Research Association</u> Conference, Bologna, Italy.

Kaya, S., McCormack, O., Birdthistle, N., & Erduran, S. (2019, August). Engaging pre-service science teachers in contemporary social aspects of nature of science: improving entrepreneurial understanding. Presentation at the <u>European Science Education Research Association</u> Conference, Bologna, Italy.

Cullinane, A., Erduran, S., & Wooding, S. (2019, August). Scientific methods in high stakes chemistry examinations: diversity or dispatiry? Presentation at the <u>European Science Education Research</u> Association Conference, Bologna, Italy.

Kaya, S., McCormack, O., Birdthistle, N., & Erduran, S. (2019, July). Changes in pre-service science teachers' understanding of the social aspects of nature of science. Presentation at the <u>International History</u>, <u>Philosophy and Science Teaching</u> Conference, Thessaloniki, Greece.

Fancourt, N., Guilfoyle, L., Chan, J., Park, W., Childs, A., Hillier, J., Erduran, S. (2019, July). The OARS Project: cross-disciplinary research and professional development of argumentation in science and religious education. Presentation at the <u>International Network for the Study of Science and Belief in Society</u> Annual Conference, Birmingham, UK.

Guilfoyle, L., Chan, J., Park, W., Fancourt, N., & Erduran, S. (2019, July). Arguing in secondary science and religious education: analysing research and curricula for cross-disciplinary opportunities in argumentation. Presentation at the <u>International Network for the Study of Science and Belief in Society</u> Annual Conference, Birmingham, UK.

Kaya, E., & Erduran, S. (2019, May). Kimya öğretmen adayları bilimin epistemik özünü nasıl algılıyor? <u>Ulusal Kimya Egitimi Kongresi</u>, Ankara, Turkey.

Cilekrenkli, A., Kaya, E., Erduran, S., Akgun, S., & Aksoz, B. (2019, April). Perceptions of nature of science: A comparative study on pre-service teachers from England and Turkey. <a href="NARST: A Worldwide Association for Improving Science Teaching and Learning through Research">NARST: A Worldwide Association for Improving Science Teaching and Learning through Research</a>, Baltimore, MD, USA.

Erduran, S. (2019, April). Presentation in symposium entitled "Emergent Research using the Family Resemblance Approach to Nature of Science in Science Education." NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, Baltimore, MD, USA.

Cullinane, A., Erduran, S., & Conway, P. (2019, April). Aligning teacher education and curriculum policy on nature of science: The case of Ireland. Presentation at the annual conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, Baltimore, MD, USA.

Erduran, S., Cullinane, A., & Gooding, S. (2019, January). Project Calibrate: A Systemic Approach to Summative Assessment of Practical Science at GCSE Level. <u>Association for Science Education</u> Annual Conference, Birmingham, UK.

El Masri, Y., Erduran, S., Cullinane, A., & Johnson, J. (2018, November). Building bridges between assessment and subject matter: An innovative approach to assessing GCSE Practical Science. <u>AEA-Europe Annual Conference</u>, Arnhem-Nijmegen, The Netherlands.

Cilekrenkli, A., Kaya, E., Erduran, S., Aksoz, B., & Akgun, S. (2018, October). Türkiye ve İngiltere'deki Öğretmen Adaylarının Bilimin Doğasına İlişkin Görüşlerinin Karşılaştırılması. 13. Ulusal Fen Bilimleri ve Matematik Egitimi Kongresi. Denizli, Turkey.

Akgun, S., Erduran, S., Kaya, E., & Aksoz, B. (2018, October). Öğretmen Adaylarının Bilimin Epistemik, Bilişsel ve Sosyal-Kurumsal Yönlerine İlişkin Algıları. 13. Ulusal Fen Bilimleri ve Matematik Egitimi Kongresi. Denizli, Turkey.

Cullinane, A., Erduran, S., & El Masri, Y. (2018, September). Mapping practical science in guideline documents and its conceptualisation in GCSE assessments. <u>44<sup>th</sup> International Association for Educational Assessment Conference</u>, Oxford, UK.

Erduran, S. (2018, July). Assessment of practical chemistry: towards a systemic approach. Paper presented at the IUPAC International Conference of Chemical Education, Sydney, Australia.

Erduran, S., & Kaya, E. (2018, July). Visualizing nature of science: case studies of pre-service chemistry teachers. Paper presented at the <u>IUPAC International Conference of Chemical Education</u>, Sydney, Australia.

Pabuccu, A., & Erduran, S. (2018, July). From memorization to argumentation in organic chemistry education: the case of conformational analysis of butane in pre-service teacher education. Paper presented at the <u>IUPAC International Conference of Chemical Education</u>, Sydney, Australia.

Kaya, E., & Erduran, S. (2018, July). A holistic view on the nature of chemistry in pre-service teacher education. Paper presented at the <u>IUPAC International Conference of Chemical Education</u>, Sydney, Australia.

Cullinane, A., Erduran, S., & Conway, P. (2018, June). Nature of science in initial teacher education: illustrated case studies. <u>Science and Mathematics Education Conference</u>, Dublin City University, Dublin, Ireland.

Cilekrenkli, A., Akgun, S., Aksoz, B., Erduran, S., & Kaya, E. (2018, May). Nature of Science in Science Teacher Education: A Comparative Study in the Contexts of Turkey and England. Presentation at the 5<sup>th</sup> Eurasian Educational Research Conference, Antalya, Turkey.

Erduran, S., Kaya, E., Aksoz, B., & Akgun, S. (2018, April). Practical perspectives on teaching and learning nature of science. Paper presented at the Annual Conference of <a href="NARST: A Worldwide">NARST: A Worldwide</a> Association for Improving Science Teaching and Learning through Research, Atlanta, GA, USA.

Aksoz, B., Kaya, E., Erduran, S., & Akgun, S. (2018, April). Investigating Pre-Service Science Teachers' Understanding about Cognitive-Epistemic Systems of Science. Paper presented at the Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, Atlanta, GA, USA.

Kaya, S., Erduran, S., & Birdthistle, N. (2018, April). From traditional to contemporary aspects of NOS: trainee science teachers' perceptions of economics and entrepreneurship. Paper presented at the Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, Atlanta, GA, USA.

Erduran, S., & Childs, A. (2017, August). Nature of science in the science curriculum in England: Towards an inclusive account. Presentation at the <u>European Science Education Research</u> Association Conference, Dublin, Ireland.

Erduran, S., & Kaya, E. (2017, August). Drawing nature of science in pre-service science teacher education. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Msimanga, A., & Erduran, S. (2017, August). Science learning for EALs: The role of teacher communicative approaches and language practices. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Kaya, E., & Erduran, S. (2017, August). A holistic view of nature of science in pre-service science teacher education. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Kaya, E., & Erduran, S. (2017, August). How social justice can be promoted through nature of science in science education. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Cullinane, A., Erduran, S., & Conway, P. (2017, August). Integrating theory into practice: professional development for pre-service teachers on nature of science for junior cycle instruction in Ireland. Ireland. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Imren, O., Erduran, S., & Murray, L. (2017, August). Using popular video games for learning scientific practices. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Guilfoyle, L., Erduran, S., & McCormack, O. (2017, August). Wishy washy nonesense: student science teachers' epistemic comparisons of educational studies and physical sciences. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Kaya, S., Erduran, S., & Birdthistle, N. (2017, August). Are they really chalk and cheese? Pre-service science teachers' perspectives on entrepreneurship and economics of science. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

Mugaloglu, E., Erduran, S., & Dagher, Z. (2017, August). Pre-service teachers' perceptions of models as scientific practices. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.

- Yeh, Y. F., Erduran, S., Hsu, Y.S., & Kaya, E. (2017). Scientific practices: A kaleidoscopic array of science learning? Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.
- Akgun, S., Erduran, S., Kaya, E., & Aksoz, B. (2017, August). Pre-service science teachers' understanding of aims and values of science. Presentation at the <u>European Science Education</u> Research Association Conference, Dublin, Ireland.
- Kelly, R., Erduran, S., Guilfoyle, L., & Walshe, G. (2017, August). Step into Science: Engaging Students, Teachers and Families in Debates. Presentation at the <u>European Science Education</u> Research Association Conference, Dublin, Ireland.
- Aksoz, B., Kaya, E., Erduran, S., & Akgun, S. (2017, August). Pre-service science teachers' understanding of scientific practices: a mixed-method investigation. Presentation at the <u>European Science Education Research Association</u> Conference, Dublin, Ireland.
- Imren, O., Erduran, S., & Murray, L. (2017, July). Using Popular Video Games for Learning Scientific Practices. Presentation at the Biennial Conference of <u>International History</u>, <u>Philosophy and Science Teaching Group</u>, Ankara, Turkey.
- Akgun, S., Aksoz, B., Kaya, E., & Erduran, S. (2017, July). Pre-service science teachers' understanding of scientific methods and methodological rules. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Ankara, Turkey.
- Aksoz, B., Akgun, S., Erduran, S., & Kaya, E. (2017, July). Exploring pre-service science teachers' understanding of the social-institutional aspects of science. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Ankara, Turkey.
- Guilfoyle, L., Erduran, S., & McCormack, O. (2017, April). Student science teachers' views of education studies versus the natural sciences. Presentation at the Annual Conference of <u>Education</u> Studies Association of Ireland, Cork, Ireland.
- Erduran, S., & Kaya, E. (2017, April). Beyond the myth of the "scientific method": A case study of pre-service chemistry teachers' understanding of the diversity of scientific methods. Paper presented at Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, San Antonio, TX, USA.
- Kaya, E., & Erduran, S. (2017, April). Theories, Laws and Models as Scientific Knowledge Forms and Their Inclusion in Science Teacher Education. Paper presented at Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, San Antonio, TX, USA.

- Akgun, S., Kaya, E., Erduran, S., Aksoz, B. (2017, April). Pre-service Science Teachers' Perceptions of Scientific Knowledge. Paper presented at Annual Conference of <u>NARST: A Worldwide Association</u> for Improving Science Teaching and Learning through Research, San Antonio, TX, USA.
- Kaya, S., Erduran, S., & Birdthistle, N. (2017, April). Enhancing Pre-service Science Teachers' Understanding on Entrepreneurship and Economics of Science. Paper presented at Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research, San Antonio, TX, USA.
- Yeh, Y. F., Erduran, S., & Hsu, Y. S. (2017, April). From fragments to wholes: Investigating the NOS in the Science Curriculum in Taiwan. Paper presented at Annual Conference of <u>NARST: A Worldwide Association for Improving Science Teaching and Learning through Research</u>, San Antonio, TX, USA.
- Flaherty, A., O'Dwyer, A., & Erduran, S. (2016, September). A Pedagogical framework for graduate teaching assistants to promote meaningful learning In the general chemistry laboratory. <u>European Conference on Research in Chemical Education</u>, Barcelona, Spain.
- Tas, T., Cetin, P. S., Kaya, E., Erduran, S., Akgun, S., & Aksoz, B. (2016, September). Öğretmen adaylarının bilimin doğasına ilişkin görüşleri: Aile benzerliği yaklaşımına dayalı bir çalışma. XII. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Trabzon, Turkey.
- Erduran, S., & Kaya, E. (2016, August). Infusing epistemic practices in chemistry curricula: A theoretical framework. Paper presented at the <u>International Conference of East-Asian Association</u> for Science Education, Japan.
- Kaya, E., & Erduran, S. (2016, August). Bird's eye view on science: Pre-service science teachers' representations of nature of science. Paper presented at the <u>International Conference of East-Asian</u> Association for Science Education, Tokyo, Japan.
- Imren, O., & Erduran, S. (2016, August). Learning scientific practices through video games. Paper presented at the <u>International Conference of East-Asian Association for Science Education</u>, Tokyo, Japan.
- Erduran, S., & Kaya, E. (2016, August). Using political theory to frame argumentation for science education: The case of deliberative democracy. Paper presented at the <u>International Conference of East-Asian Association for Science Education</u>, Tokyo, Japan.
- Kaya, E., & Erduran, S. (2016, August). Nature of science in pre-service teacher education: Learning to teach epistemic practices of chemistry. Paper presented at the <u>International Conference of East-Asian Association for Science Education</u>, Tokyo, Japan.
- Kelly, R., & Erduran, S. (2016, August). An Investigation of Pre-service ScienceTeachers' Views of the Epistemic, Cognitive and Social Aims and Values of Science. Paper presented at the First

<u>European Regional Conference of the International History, Philosophy and Science Teaching Group, Flensburg, Germany.</u>

Guilfoyle, L., Erduran, S., & McCormack, O. (2016, August). Comparing knowledge: Exploring the influence of pre-service science teachers' personal epistemologies on their acceptance or rejection of Education Studies. Paper presented at the <u>First European Regional Conference of the International History</u>, Philosophy and Science Teaching Group, Flensburg, Germany.

Guilfoyle, L., Erduran, S., & McCormack, O. (2016, August). Exploring the influence of pre-service science teachers' personal epistemologies on their perceptions of education studies. <u>European Conference of Educational Research</u>, Dublin, Ireland.

Cullinane, A., & Erduran, S. (2016, August). Science Teacher Education on Nature of Science: A Family Resemblance Approach. <u>European Conference of Educational Research</u>, Dublin, Ireland.

Flaherty, A., Erduran, S., O'Dwyer, A., Leahy, J. J. (2016, August). Designing, Implementing and Evaluating a Pedagogical Framework for Chemistry Laboratory Graduate Teaching Assistants. <u>European Conference of Educational Research</u>, Dublin, Ireland.

Cullinane, A., Erduran, S., & Conway, P. (2016, June). Initial science teacher education on nature of science: A family resemblance approach. Presentation at <u>SMEC Conference</u>, Dublin City University, Ireland.

Erduran, S., Kelly, R., Guilfoyle, L., & Walshe, G. (2016, June). Step into science project: Engaging students, teachers and parents in debates. Presentation at <u>SMEC Conference</u>, Dublin City University, Ireland.

Erduran, S., & Dagher, Z. (2016, June). Consolidating the epistemic, cognitive and social dimensions of scientific practices in science education. Presentation at the <u>Society for Philosophy of Science in Practice Conference</u>, Philadelphia, USA.

Erduran, S., & Kaya, E. (2016, June). Argumentation in Science Education: Contributions from Models of Deliberative Democracy. <u>III. International Eurasian Educational Research Conference</u>, Mugla, Turkey.

Kaya, E., & Erduran, S. (2016, June). Nature of Science in Science Teacher Education: A Comparative Research and Development Project. <u>III. International Eurasian Educational Research Conference</u>, Mugla, Turkey.

Aksoz, B., Akgun, S., Kaya, E., Erduran, S., & Tas, T. (2016, June). Pre-service science teachers' perceptions of the nature of science: An investigation based on the Family Resemblance Approach. III. International Eurasian Educational Research Conference, Mugla, Turkey.

Erduran, S., & Dagher, Z. (2016, April). Towards a holistic model of epistemic practices in science education. Presentation at the Annual Conference of <u>NARST: A Worldwide Association for Improving Science Teaching and Learning through Research</u>, Baltimore, USA.

Dagher, Z., Erduran, S., Kaya, E., & BouJaoude, S. (2016, April). Infusing scientific practices in science teacher education in Lebanon. Presentation at the <u>Annual Conference of NARST: A Worldwide Association for Improving Science Teaching and Learning through Research</u>, Baltimore, USA.

Guilfoyle, L., Erduran, S., & McCormack, O. (2016, March). Science vs Education Studies: Exploring science teachers' beliefs about knowledge and knowing in two domains. <u>Educational Studies Association of Ireland Conference</u>, Galway, Ireland.

Kaya, E., Erduran, S., & Cetin, P. S. (2016, March). Incorporating a holistic model of nature of science in pre-service science teacher education. Presentation at <u>International Conference on New Perspectives in Science Education</u>, Florence, Italy.

Mooney Simmie, G., & Erduran, S. (2016, February). Nature of science in science education. Presentation <u>BERA Research Commission Project STEAM Conference</u>, University of Aberdeen, Scotland.

Kaya, E., & Erduran, S. (2015, September). Parcalardan butunlere: Bilimin dogasini kimya mufredat programinda yeniden nasil tanimlayabiliriz? Presentation at 4<sup>th</sup> National Chemical Education Conference, Balikesir, Turkey. (From fragments to wholes: how can we redefine nature of science in the chemistry curriculum?)

Erduran, S., & Dagher, Z. (2015, September). Towards A Holistic Model Of Epistemic Practices For Science Education. Paper presented at the <u>European Science Education Research Association</u>, Helsinki, Finland.

Martin, C., & Erduran, S. (2015, September). Pre-service primary teachers' understanding and perception of argumentation. Paper presented at the <u>European Science Education Research Association</u>, Helsinki, Finland.

Msimanga, A., & Erduran, S. (2015, September). Talking science in South Africa: Using meta-talk to support ESLs understanding of science concepts. Paper presented at the <u>European Science Education Research Association</u>, Helsinki, Finland.

Kaya, E., & Erduran, S. (2015, September). Integrating epistemological perspectives on chemistry in chemical education: the cases of concept duality, chemical language, and structural explanations. Paper presented at the <u>European Science Education Research Association</u>, Helsinki, Finland. (Invited Session on *Science & Education* Journal)

Orofino, R., & Erduran, S. (2015, September). Methodological Approaches in the Study of Brazilian Ecology Students' Written Argumentation. Paper presented at the <u>European Science Education Research Association</u>, Helsinki, Finland.

Flaherty, A., O'Dwyer, A., & Erduran, S. (2015, September). Disparity in the Attitudes and Perceptions towards the Role of the Demonstrator in the Undergraduate Laboratory. Paper presented at the European Science Education Research Association, Helsinki, Finland.

Dagher, Z., & Erduran, S. (2015, July). Characterizing nature of science: Family Resemblance Approach. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial</u> Conference, Rio de Janeiro, Brazil.

Justi, R., & Erduran, S. (2015, July). Characterizing nature of science: A supporting model for teachers. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial Conference</u>, Rio de Janeiro, Brazil.

Erduran, S., & Dagher, Z. (2015, July). From fragments to wholes in scientific knowledge and its growth in school science. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial Conference</u>, Rio de Janeiro, Brazil.

Kaya, S., Erduran, S., & Birdthistle, N. (2015, July). The role of entrepreneurship in nature of science and science education. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial Conference</u>, Rio de Janeiro, Brazil.

Imren, O., Erduran, S., & Murphy, L. (2015, July). Nature of science and video games. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial Conference</u>, Rio de Janeiro, Brazil.

Cullinane, A., & Erduran, S. (2015, July). Incorporating Nature of Science in Science Teacher Education: An Irish Example. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Biennial Conference</u>, Rio de Janeiro, Brazil.

Kaya, E., & Erduran, S. (2015, July). Missing pieces and holes in the Turkish middle school science curriculum: Towards a reconceptualized holistic account of NOS. Paper presented at the International History, Philosophy and Science Teaching Biennial Conference, Rio de Janeiro, Brazil.

Erduran, S. (2015, June). Argumentation in science teaching and learning. <u>European Conference on Argumentation</u>, Lisbon, Portugal.

Erduran, S., & Dagher, Z. (2015, June). Incorporating Growth of Knowledge Frameworks in the Science Curriculum, Paper presented at the Biennial Conference of the <u>Society for Philosophy of Science in Practice Conference</u>, Aarhus, Denmark.

Dagher, Z., & Erduran, Z. (2015, June). Reconceptualising the nature of science for science education. Paper presented at the Biennial Conference of the <u>Society for Philosophy of Science in Practice Conference</u>, Aarhus, Denmark.

Mugaloglu, E., Ceyhan, G., Lombardi, T., & Erduran, S. (2015, June). Fen Eğitiminde Model Kanıt (MOK) İlişki Şemasının Kullanımı. <u>International Science Education Research Conference</u>, Istanbul, Turkey.

Dagher, Z. & Erduran, S. (2015, June). Reconceptualizing the Nature of Science for Science Learning and Instruction, Paper presented at Philosophy of Science in Practice Conference, Aarhus, Denmark.

Erduran, S., Dagher, Z., R., Mugaloglu, E. Z., Kaya, E., Saribas, D., & Ceyhan, G. (2015, April). Towards a Holistic Account of Scientific Practices in Science Teacher Education. Paper presented at the annual meeting of the <u>American Educational Research Association</u>, Chicago, USA.

Dagher, Z. R., & Erduran, S. (April, 2015). NGSS Implementation Resources: Averting Blind Spots. Paper presented at the annual meeting of <u>NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research</u>, Chicago, USA.

Erduran, S., & Dagher, Z.R. (2015, April). Scientific Practices: Theoretical Perspectives and Educational Implications. Paper presented at the annual meeting of <u>NARST: A Worldwide</u> Organization for Improving Science Teaching and Learning through Research, Chicago, USA.

Erduran, S., Kaya, E., Cetin, P. S., O'Grady, A., Leahy, K., Uworwabayeho, A., & Mutarutinya, V. (2015, April). Research and Development on Argumentation in Pre-Service Teacher Education in Rwanda. Paper presented at the annual meeting of <u>NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research</u>, Chicago, USA.

Mugaloglu, E., Ceyhan, G., Erduran, S., Dagher, Z., Kaya, E., & Sarıbaş, D. (2015, April). An Investigation of Pre-service Science Teachers' Perception of Scientific Practices. Paper presented at the annual meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Chicago, USA.

Kaya, E., Erduran, S., Dagher, Z., Mugaloglu, E., Sarıbaş, D., & Ceyhan, G., (2015, April). Preservice Science Teachers' Representations of Scientific Practices. Paper presented at the annual meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Chicago, USA.

Dagher, Z., Mugaloglu, E., Erduran, S., Kaya, E., Sarıbaş, D., & Ceyhan, G. (2015, April). Case Study Analysis of Preservice Teachers' Perceptions of Scientific Practices. presented at the annual meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Chicago, USA.

Kaya, E., Saribas, D., & Erduran, S. (2015, April). Pre-service science teachers' perceptions of scientific practices. Paper presentation at the <u>IOSTE Eurasian Regional Symposium and EU Horizon 2020 Brokerage Event</u>, Istanbul, Turkey.

Kaya, S., Erduran, S., & Birdthistle, N. (2015, April). Promoting entrepreneurial skills in science education through argumentation. Poster presentation at the <u>Educational Studies in Ireland Association Conference</u>, Maynooth, Ireland.

Imren, O., & Erduran, S. (2015, April). Learning scientific practice through video games. Poster presentation at the Educational Studies in Ireland Association Conference, Maynooth, Ireland.

Erduran, S., Kaya, E., & Cetin, P. S. (2015, January). Promoting pre-service teachers' learning of argumentation in Rwanda. Paper presented at the <u>Southern African Association for Mathematics</u>, <u>Science and Technology Education Conference</u>, Maputo, Mozambique.

Kaya, E., & Erduran, S. (2015, January). Pre-Service science teachers' visual representations of scientific practices. Paper presented at the <u>Southern African Association for Mathematics, Science and Technology Education Conference</u>, Maputo, Mozambique.

Dagher, Z., & Erduran, S. (2014, December). Reconceptualizing the Nature of Science for Science Education: Why does it matter? <a href="https://example.com/linearing-nature-14">IHPST Asia Regional Conference</a>, Taipai, Taiwan.

Dagher, Z., & Erduran, S. (2014, April). Aims and values of science: implications for curriculum design and assessment of learning. <u>NARST: Worldwide Association for Improving Science Teaching and Learning through Research</u>, Pittsburgh, USA.

Pabuccu, A., & Erduran, S. (2014, April). Organic chemistry: from memorisation to argumentation in educational contexts. <u>NARST: Worldwide Association for Improving Science Teaching and Learning through Research</u>, Pittsburgh, USA.

Erduran, S., & Mugaloglu, E. (2013, October). Revisiting scientific inquiry in the classroom: towards an interdisciplinary framework in science teaching and learning. <u>IOSTE Eurasia Regional Conference</u>, Antalya, Turkey.

Msimanga, A., & Erduran, S. (2013, October). Messages from the curriculum: the role of indigenous knowledge in the South African science curriculum. Indigenous Knowledge Conference, University of Western Cape, South Africa.

Erduran, S., & Dagher, Z. (2013, September). The role of scientific aims and values in science education. European Conference on Educational Research, Bahcesehir University, Istanbul, Turkey.

Park, J. Y., Ozdem, Y., & Erduran, S. (2013, September). Research trends on Argumentation in Science Education: A Content Analysis of Key Journals, <u>European Science Education Research Association</u>, Nicosia, Cyprus.

Cetin, P. S., Erduran, S., & Kaya (2013, September). Understanding Scientific Arguments: The Case of Pre-service Science Teachers, <u>European Science Education Research Association</u>, Nicosia, Cyprus.

Pabuccu, A., Erduran, S., & Moncada, A. (2013, September). Argumentation in Organic Chemistry Education, European Science Education Research Association, Nicosia, Cyprus.

Lazarou, D., Erduran, S., & Southerland, R. (2013, September). A CHAT view of Argumentation: Focusing on the object of the activity, <u>European Science Education Research Association</u>, Nicosia, Cyprus.

Erduran, S., & Dagher, Z. (2013, September). The Nature of Scientific Activities: Theoretical Perspectives with Educational Implications. <u>European Science Education Research Association</u>, Nicosia, Cyprus.

Dagher, Z., & Erduran, S. (2013, June). The nature of laws and explanations in chemistry and biology: philosophical perspectives and educational implication. Presentation at the <u>International History</u>, Philosophy and Science Teaching Conference, Pittsburgh, PA, USA.

Dagher, Z., & Erduran, S. (2013, June). Scientific methods and science education. Presentation at the International History, Philosophy and Science Teaching Conference, Pittsburgh, PA, USA.

Dagher, Z., & Erduran, S. (2013, May). Towards a holistic model of scientific and engineering practices for science education. Presentation at the Improving Middle School Science Instruction Using Cognitive Science Conference, National R & D Center for Cognition and Science Instruction, Washington DC, USA. May 21-22.

Erduran, S., & Mugaloglu, E. (2013, April). Philosophy of chemistry and chemical education: recent developments and future directions, <u>NARST Conference</u>, Puerto Rico.

Pabuccu, A., & Erduran, S. (2013, April). Narrative and epistemic practices of science: investigating students' argumentation in the context of a story about gases, <u>NARST Conference</u>, Puerto Rico.

Kaya, E., Erduran, S., & Cetin, P.S. (2013, April). Pre-service science teachers' understanding and evaluation of arguments, <u>NARST Conference</u>, Puerto Rico.

Msimanga, A., & Erduran, S. (2013, April). Curricular developments in South Africa: the role of argumentation in secondary science teaching, <u>NARST Conference</u>, Puerto Rico.

Perez, B., Jimenez-Aleixandre, M. P., & Erduran, S. (2013, April). Epistemic practices in the chemistry laboratory: teachers' scaffolding during an inquiry task, <u>NARST Conference</u>, Puerto Rico.

Dagher, Z., & Erduran, S. (2013, April). Laws and explanations in biology and chemistry:

philosophical perspectives and educational implications, NARST Conference, Puerto Rico.

Erduran, S. (2012, November). Promoting argumentation in science teachers' professional development: Perspectives from the EU-funded STEAM Project. <u>International Organisation for Science and Technology Education (IOSTE)</u>, Yasmine Hammamet, Tunisia.

Pabuccu, A., & Erduran, S. (2012, November). Argumentation in organic chemistry education. <u>International Organisation for Science and Technology Education (IOSTE)</u>, Yasmine Hammamet, Tunisia.

Pabuccu, A., Erduran, S., & James, J. (2012, July). Heating up the discussion: promoting and investigating argumentation in the context of chemistry stories, <u>International Dynamic, Exploratory and Active Learning Conference</u>, Bayburt, Turkey.

Erduran, S, Ozdem, Y. & Park, J. Y. (2012, April). Research on Argumentation in Science Education: A Content Analysis of Key Journals, Annual Conference of the <u>American Educational Research</u> Association, Vancouver, Canada.

Erduran, S., & Evagorou, E. (2012, March). Visualizing Evidence and Scientific Methods, and Implications for Science Education, NARST: Worldwide Association for Improving Science Teaching and Learning through Research Annual Conference, Indianapolis, USA.

Yan, X., Erduran, S., & Pabuccu, A. (2011, September). Argumentation in science education: STEAM project perspectives and implications for tertiary education. <u>Royal Society of Chemistry</u> Variety in Chemical Education Conference. York, UK.

Ozdem, Y., Erduran, S., & Park, J. Y. (2011, September). The development of an argumentation theory in science education. Paper presented at the annual conference of <u>European Science Education Research Association</u>, Lyon, France.

Park, J. Y., Erduran, S., & Ozdem, Y. (2011, September). Model of argumentation in science education research. Paper presented at the annual conference of <u>European Science Education</u> <u>Research Association</u>, Lyon, France.

Mugaloglu, E., & Erduran, S. (2011, September). Prospective science teachers' appreciation of science: the case of theory of evolution versus intelligent design. Paper presented at the annual conference of <u>European Science Education Research Association</u>, Lyon, France.

Dagher, Z., & Erduran, S. (2011, September). The unique nature of biological and chemical explanations. Paper presented at the annual conference of <u>European Science Education Research Association</u>, Lyon, France.

Kaya, E., & Erduran, S. (2011, September). Integrating epistemological perspectives on chemistry in chemical education. Paper presented at the annual conference of <u>European Science Education</u>

## Research Association, Lyon, France.

Erduran, S., & Mugaloglu, E. (2011, July). Visiting the science market: implications of perspectives on economics of science in science education. Paper presented at the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Thessaloniki, Greece.

Dagher, Z., & Erduran, S. (2011, July). A Comparative Study of the Nature of Laws and Explanations in Biology and Chemistry. Paper presented at the <u>International History</u>, <u>Philosophy and Science</u> Teaching Conference, Thessaloniki, Greece.

Erduran, S., Ozdem, Y., & Park, J. P. (2011, April). Trends in research on argumentation in science education: a content analysis of top journals. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, Florida, USA.

Dagher, Z., & Erduran, S. (2011, April). (2011, April). The nature of scientific laws in biology and chemistry: implications for science curriculum and instruction. Paper presented at the annual conference of the National Association for Research in Science Teaching, Orlando, Florida, USA.

Duschl, R., Erduran, S., Grandy, R., Crawford, B., Schwarz, R., Allchin, D., Aduriz-Bravo, A. (2011, April). Inquiry, Science practices and the nature of science. NARST Presidential Symposium. Panel discussion at the annual conference of the <u>National Association for Research in Science Teaching</u>, Orlando, Florida, USA.

Erduran, S. (2010, November). Minding gaps in argument: promoting epistemic practices of science in teacher education. Presentation at <u>World Congress of Teaching, Learning and Administration</u>, American University in Cairo, Egypt.

Park, J. Y., Erduran, S., & Yan, X. (2010, October). Continuing professional development through teachers' collaborations across subjects. Presentation at 13<sup>th</sup> Hokkaido University- Seoul National University Joint Symposium on "Comparative Study of Science Teacher Education in Formal and Informal Educational Settings in Korea and Japan". Hokkaido, Japan.

Polat, F. & Erduran, S. (2010, July). Role of Continued Professional Development Promoting Inclusion. <u>Inclusive and Supportive Education Congress</u> (ISEC), August, Belfast, UK.

Park, J. P., & Erduran, S. (May, 2010). University students' meaning-making of socio-scientific issues in group argumentation. Motivation to Learn in Social Contexts: Integrating Individual and Social Perspectives, <u>European Association for Research in Learning and Instruction</u> ACS Conference Invited Paper, University of Cambridge.

Erduran, S. (2010, March). New Researcher and Junior Faculty Early Career Discussion, Membership and Elections Committee Sponsored Session, <u>National Association for Research in Science Teaching</u> Annual Conference, Philadelphia, USA.

Cetin, P., Erduran, S., & Kaya, E. (2010, March). Chemistry students' understanding of the nature of science and argument. Presentation at <u>National Association for Research in Science Teaching</u> Annual Conference, Philadelphia, USA.

Kaya, S., Erduran, S., & Cetin, P. (2010, March). Investigating pre-service science teachers' understanding of argument. Presentation at <u>National Association for Research in Science Teaching</u> Annual Conference, Philadelphia, USA.

Kaya, S., Erduran, S., & Cetin, P. (2010, February). High school students' perceptions of argumentation. Presentation at the World Educational Sciences Conference, Istanbul, Turkey.

Abeid, M., Erduran, S., Ingram, N., & Rea-Dickins, P. (2010, January). Science assessment in a second language: perspectives from the SPINE project in Zanzibar. Presentation at <u>Association for Science</u> Education Annual Conference, Nottingham, UK.

Ingram, N., & Erduran, S. (2010, January). Teacher education in scientific argumentation: perspectives from the EU-funded STEAM project. Presentation at <u>Association for Science Education Annual Conference</u>, Nottingham, UK.

Yan, X., & Erduran, S. (2010, January). Minding the gap in argumentation: teachers' perspectives on bridging policy, research and practice. Presentation at <u>Association for Science Education Annual Conference</u>, Nottingham, UK.

Cetin, P., Kaya, E., & Erduran, S. (2009, October). Investigating pre-service science teachers' understanding of argument. Presentation at the <u>3<sup>rd</sup> International Computer and Instructional Technologies Symposium, Karadeniz Teknik Universitesi, Trabzon, Turkey.</u>

Erduran, S., & Jimenez-Aleixandre, M. P. (2009, August). Promoting argumentation in science education: Mind the Gap Project Perspectives from England and Spain. Presentation at the European Science Education Research Association Conference, Istanbul, Turkey.

Yakmaci-Guzel, B., Erduran, S., & Ardac, D. (2009, August). Is mercury a metal or a non-metal?: Investigating pre-service chemistry teachers' understanding and teaching of argumentation. Presentation at the <u>European Science Education Research Association Conference</u>, Istanbul, Turkey.

Villamanan, R., & Erduran, S. (2009, August). Engineering students' written arguments about thermodynamics in the context of Peltier Effect in refrigeration. Presentation at the <u>European Science Education Research Association Conference</u>, Istanbul, Turkey.

Erduran, S. (2009, August). Evidence-based professional development of science teachers from different career stages. Presentation at the <u>European Science Education Research Association</u> Conference, Istanbul, Turkey.

Castells, M., Erduran, S., & Konstantinidou, K. (2009, August). Argumentation and scientific conceptions in peer discussions: a comparison between Catalan and English students. Presentation

at the European Science Education Research Association Conference, Istanbul, Turkey.

Polat, F., Erduran, S., & Raveaud, M. (2009, July). Inclusive science teaching. Presentation at the 11th Biennial Conference on Broadening the Horizon: Recognizing, Accepting, and Embracing Differences to Make a Better World for Individuals with Special Needs, <u>International Association of Special Education</u>, Alicante, Spain.

Erduran, S., & Villamanan, R. (2009, April). Cool Argument: Investigating the Epistemic Levels and Argument Quality in Engineering Students' Written Arguments about the Peltier Effect in Refrigeration. Presentation at the annual conference of the <u>National Association for Research in Science Teaching</u>, Garden Grove, CA, USA.

Polat, F., Erduran, S., & Raveaud, M. (2009, April). Step-IN: Science Teaching for Promoting Inclusion. Paper presented at the annual meeting of <u>American Educational Research Association</u> – SIG-Special Education Research, San Diego, USA.

Erduran, S. (2009, April). Modeling epistemic practices in science teachers' learning. Presentation at the annual conference of the <u>National Association for Research in Science Teaching</u>, Garden Grove, CA, USA.

Erduran, S., Castells, M., & Konstantinidou, A. (2009, January). English and Catalan Pre-service Primary Teachers' Arguments in Group Discussion. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading.

Erduran, S., Polat, F., Barnes, C., & Williams, D. (2009, January). step-IN: Science Teaching for Promoting Inclusion. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading.

Erduran, S., Gallastegui, J. R., & Vince, J. (2009, January). Argumentation and communication in science education: perspectives from 'Mind the Gap' project. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading.

Denley, P., Erduran, S., & Bishop, K. (2009, January). Conundrums and challenges researching science curriculum change in low-income countries. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading.

Dolin, J., Evans, R., Erduran, S., & Reti, M. (2009, January). Scientific literacy and inquiry: Denmark, Hungary and the United Kingdom. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading.

Castells, M., Erduran, S., & Konstantinidou, K. (2008, August). Comparison between Catalan and English students' argumentation about scientific versus socio-scientific issues. Paper to be presented at the <u>GIREP Conference</u>, Nicosia, Cyprus.

Erduran, S., Ardac, D., & Yakmaci-Guzel, B. (2007, August). Origin of argumentation: promoting argumentation in initial science teacher education. Presentation at the <u>European Science Education Research Association Conference</u>, Malmo, Sweden.

Erduran, S., Ardac, D., & Yakmaci-Guzel, B. (2007, August). Beginning to argue: argumentation in preservice science teacher education. Presentation at the <u>European Association for Research in</u> Learning and Instruction Conference, Budapest, Hungary.

Erduran, S., & Aduriz-Bravo, A. (2007, June). Talking chemistry: investigating the epistemological aspects of chemical language and implications for chemical Education. Presentation at the <u>9th International History</u>, Philosophy and Science Teaching Conference, Calgary, Canada.

Erduran, S., & Baggot la Velle, L. (2007, January). Investigating "How Science Works" frameworks in the new exam board specifications. Presentation at the annual conference of the <u>Association for Science Education</u>. Birmingham, UK.

Osborne, J., Erduran, S., & Simon, S. (2007, January). Talking to learn and learning to talk. Presentation at the annual conference of the Association for Science Education. Birmingham, UK.

Yakmaci-Guzel, B., Ardac, D., & Erduran, S. (2006, September). Aday kimya ogretmenlerinin kimya derslerinde bilimsel tartisma tekniklerini kullanmalari. (Pre-service chemistry teachers' use of argumentation strategies in chemistry lessons). Paper presented at the 7<sup>th</sup> National Conference on Science and Technology Education, <u>Gazi University</u>, Ankara, Turkey.

Ardac, D., Erduran, S., & Yakmaci-Guzel, B. (2006, August). Promoting argumentation among preservice chemistry teachers. Paper presented at the 19<sup>th</sup> International Conference of Chemical Education, Seoul, Korea.

Erduran, S., Ardac, D., & Yakmaci-Guzel, B. (2006, April). Promoting argumentation in initial teacher training in Turkey. Paper presented at the annual conference of the <u>National Association for Research in Science Teaching</u>, San Francisco, USA.

Erduran, S., Jimenez Aleixandre, M. P., & Duschl, R. (2006, April). Research in argumentation in science education: theoretical considerations and empirical approaches. Presentation at the annual conference of the <u>National Association for Research in Science Teaching</u>, San Francisco, USA.

Erduran, S. (2006, April). Building a community of researchers: a European Science Education Research Association example. Presentation at the annual conference of the <u>National Association</u> for Research in Science Teaching, San Francisco, USA.

Osborne, J., Erduran, S., & Simon, S. (2006, April). Ideas, evidence and argument in science education: supporting teacher practice. Paper presented at the annual conference of the <u>American Educational Research Association</u>, San Francisco, USA.

Revel-Chion, A., Couló, A., Erduran, S., Furman, M., Iglesia, P., & Adúriz-Bravo, A. (2005, September). Estudios Sobre la enseñanza de la argumentación científica escolar. Paper presented at the Enseñanza de las Ciencias Conference, Granada.

von Aufschnaiter, C., Erduran, S., Kraus, M. E., Osborne, O., Roggel, C., & Simon, S. (2005, August) Argumentation and the learning of science. Paper presented at the <u>European Science Education Research Association Conference</u>, Barcelona, Spain.

Ardac, D., Erduran, S., & Yakmaci-Guzel, B. (2005, August). Ideas, evidence and argument in preservice science teaching in Turkey. Paper presented at the <u>European Science Education Research</u> Association Conference, Barcelona, Spain.

Erduran, S., & Dagher, Z. (2005, August). Exemplary teaching of argumentation in science: Case studies of two middle school teachers. Paper presented at the <u>European Science Education Research Association Conference</u>, Barcelona, Spain.

Osborne. J., Erduran, S,& Simon, S. (2005, August). Ideas, evidence and argument in science education: Supporting teachers' practice. Paper to be presented at the <u>European Science Education Research Association</u> Conference, Barcelona, Spain.

Erduran, S. (2005, July). Beyond philosophical confusion: Establishing the role of philosophy of chemistry in chemical education research. Paper to be presented at the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Leeds, UK.

Erduran, S., Aduriz-Bravo, A., & Mamlok-Naaman, R. (2005, July). Promoting epistestemologically empowered teachers in chemistry. Paper to be presented at the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Leeds, UK.

Erduran, S., & Dagher, Z. (2005, April). Case studies of exemplary teaching of argumentation in science. Paper to be presented at the annual conference of the <u>American Educational Research</u> Association, Montreal, Canada.

Erduran, S. (2005, April). Breaking the law: Examining the distinct nature of laws in chemistry and implications for chemical education. Paper to be presented at the annual conference of the National Association for Research in Science Teaching, Dallas, USA.

Jiménez-Aleixandre, M. P., López Rodríguez, R., & Erduran, S. (2005, April). Argumentation quality and intellectual ecology: A case study in elementary school. Paper to be presented at the annual conference of the National Association for Research in Science Teaching, Dallas, USA.

Erduran, S., Taber, K., Simon, S., & Tweats, R. (2005, January). Ideas and Evidence at Key Stage Three. Presentation at the annual conference of the <u>Association for Science Education</u>, Leeds, UK.

Chion, R. A., Erduran, S., & Aduriz-Bravo, A. (2004, August). Argumentation in school science. Paper presented at the <u>Ibero-American Science Education Conference</u>, Guatemala.

Erduran, S. (2004, August). Argumentation in chemical education. Presentation at the <u>18<sup>th</sup></u> International Conference on Chemical Education, Istanbul, Turkey.

Erduran, S.. & Mamlok-Naaman, R. (2004, August). Transforming the chemistry curriculum through history and philosophy of chemistry. Presentation at the <u>18<sup>th</sup> International Conference on Chemical</u> Education, Istanbul, Turkey.

Erduran, S. (2004, April). Continuing professional development in scientific argumentation and discourse. Presentation at the annual conference of the <u>American Educational Research Association</u>, San Diego, USA.

Simon, S., Erduran, S., & Osborne, J. (2004, April). Developing the teaching of argumentation in school science. Presentation at the annual conference of the <u>National Association for Research in Science Teaching</u>, Vancouver, Canada.

Von Aufschnaiter, C., Erduran, S., & Osborne, J. (2004, April). Argumentation and cognitive processes in science education. Presentation at the annual conference of the <u>National Association</u> for Research in Science Teaching, Vancouver, Canada.

Harrison, C., Watson, R., & Erduran, S. (2004, January). Continuing development in science education. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading, UK.

Simon, S., Osborne, J., & Erduran, S. (2004, March). Ideas, Evidence and Argument in Science Project. <u>Association of Tutors in Science Education</u>, Annual Day Conference, Bedford, UK.

Erduran, S., Khatete, D., Twoli, N., Watson, R., & Wilson, N. (2004, January). Girl power! Improving attitudes and performance of Kenyan girls in science. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading, UK.

Erduran, S. (2004, January). Beyond magic: Making chemistry education more chemical. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading, UK.

Erduran, S., Osborne, J., & Simon, S. (2004, January). In-service training in ideas, evidence and argument. Presentation at the annual conference of the <u>Association for Science Education</u>, Reading, UK.

Erduran, S. (2003, October). Ideas, Evidence and Argument in Science Education. Presentation at Comenius 2.1, <u>Socrates Programme Contact Seminar</u>, Copenhagen, Denmark.

Erduran, S. (2003, August). Bonding chemical knowledge and education. Paper presented at the <u>European Association for Research in Learning and Instruction Conference</u>, Padova, Italy.

Erduran, S., Osborne, J., & Simon, S. (2003, August). The role of argument in developing scientific literacy Paper presented at the <u>European Science Education Research Association Conference</u>, Utrecht, Netherlands.

Erduran, S. (2003, August). Breaking the law: The distinct nature of laws in chemistry and implications for chemistry education. Paper accepted for the <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Winnipeg, Canada.

Erduran, S. (2003, July). Analysis of English as an Additional Language policy documents in USA, Canada, Australia and UK. Presentation at the <u>25<sup>th</sup> Language Testing Research Colloquium</u>, University of Reading, UK.

Erduran, S. (2003, February). Continuing professional development in argumentation. Presentation at the Gatsby Foundation Conference, London, UK.

Osborne, J., Erduran, S., & Simon, S. (2003, January). Ideas, Evidence and Argument in Science. Presentation at the annual meeting of the Association for Science Education, Birmingham, UK.

Erduran, S. (2003, January). How do we know every transparent liquid is not water? Presentation accepted for the annual meeting of the Association for Science Education, Birmingham, UK.

Erduran, S. (2002, September). Nurturing the chemical mind through epistemic dialogue. Paper accepted for presentation at the annual meeting of the <u>British Educational Research Association</u>, Exeter, UK.

Maloney, J., Erduran, S, Osborne, J., & Simon, S. (2002, September). Enhancing the quality of argument in school science: Developing teachers' practice. Presentation at the annual meeting of the British Educational Research Association, Exeter, UK.

Erduran, S. (2002, April). Philosophy of chemistry in the curriculum. Presentation at the <u>Commonwealth Association for Science, Technology and Mathematics Education Conference, Malta.</u>

Erduran, S., Osborne, J., & Simon, S. (2002, April). Argument in school science: Reflections from classroom discourse. Presentation at the <u>Commonwealth Association for Science, Technology and Mathematics Education Conference, Malta.</u>

Aduriz-Bravo, A., & Erduran, S., & Meinardi, E. (2002, April). Philosophies of chemistry and biology as emergent disciplines and their contribution to science education. Presentation at the <u>Commonwealth Association for Science, Technology and Mathematics Education Conference, Malta.</u>

Simon, S., Erduran, S., & Osborne, J. (2002, April). Enhancing the Quality of Argument in School Science. Paper presented at the annual conference of the <u>National Association for Research in Science Teaching</u>, New Orleans, USA.

Erduran, S. (2002, January). From cookbooks to authentic chemical practices in the chemistry classroom. Presentation made at the annual conference of the <u>Association for Science Education</u>, Liverpool, UK.

Osborne, J., Erduran, S., & Simon, S. (2002, January). Enhancing the quality of argument. Presentation made at the annual conference of the <u>Association for Science Education</u>, Liverpool, UK.

Erduran, S. (2001, November). Teaching critical themes from philosophy of chemistry: The case of reduction in chemistry education. Paper presented at the 6th <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Denver, USA.

Erduran, S., Osborne, J., Simon, S., & Monk, M. (2001, November). Enhancing the quality of argument in school science. Paper presented at the 6th <u>International History</u>, <u>Philosophy and Science Teaching Conference</u>, Denver, USA.

Aduriz-Bravo, A., & Erduran, S. (2001, October). La epistemología específica de la biología como disciplina emergente y su posible contribución a la didáctica de la biología. Presentation at the <u>V. Jornadas Nacionales de Enseñanza de la Biología</u> (Fifth National Symposium on Biology Teaching). Posadas, Argentina.

Erduran, S. (2001, September). Reminiscence of 17th century explanations in students' models of acids, bases and neutralization. Paper presented at the annual conference of the <u>British Educational Research Association</u>, Leeds, UK.

Erduran, S. (2001, August). Design of learning environments to facilitate philosophical discussions of acids and bases. Presentation at the Fifth <u>International Symposium on the Philosophy of Chemistry</u>, Loughborough University, Loughborough, UK.

Osborne, J., Simon, S., Erduran, S., & Monk, M. (2001, August). Enhancing the quality of argument in school science. Paper presented at the <u>European Science Education Research Association Conference</u>, Thessaloniki, Greece.

Erduran, S. (2001, March). Cognitive and philosophical perspectives on modeling: Implications for chemistry education. Paper presented at the annual conference of the <u>American Educational</u> Research Association, Seattle, USA.

Erduran, S., Simon, S., Osborne, J., & Monk, M (2001, March). Enhancing the quality of argument in school science. Paper presented at the annual conference of the <u>American Educational Research</u> Association, Seattle, USA.

Erduran, S. (2001, March). American peace education initiatives in Cyprus: A survey of workshops conducted with Turkish Cypriot and Greek Cypriot professionals. Paper presented at the annual conference of the American Educational Research Association, Seattle, USA.

Osborne, J., Erduran, S., Simon, S., & Monk, M. (2001, March). Enhancing the quality of argument in school science. Paper presented at the annual conference of the <u>National Association in Research</u> in Science Teaching, St Louis, USA.

Erduran, S. (2001, January). What good is philosophy of chemistry in chemistry education? Paper presented at the annual conference of the Association for Science Education, Guildford, UK.

Erduran, S., Osborne, J., Simon, S., & Monk, M. (2001, January). Enhancing the Quality of Argument in School Science' Project: An update. Paper presented at the annual conference of the <u>Association for Science Education</u>, Guildford, UK.

Erduran, S. (2000, September). Merging curriculum design with chemical epistemology: A case of teaching and learning chemistry through modeling. Paper presented at the annual conference of the British Educational Research Association, Cardiff, Wales.

Erduran, S. (2000, September). Can philosophy of chemistry resolve mismatch between teacher and student talk in the chemistry classroom? Paper presented at the annual conference of the <u>British Educational Research Association</u>, Cardiff, Wales.

Erduran, S., Simon, S., Osborne, J., & Monk, M. (2000, September). Project EQuASS: 'Enhancing the Use of Argument in School Science' Project. Paper presented at the annual conference of the <u>British Educational Research Association</u>, Cardiff, Wales.

Duschl, R., Ellenbogen, K., & Erduran, S. (1999, August). Middle school science students' dialogic argumentation. Paper presented at the <u>European Science Education Research Association</u> Conference, Kiel, Germany.

Duschl, R., Ellenbogen, K., & Erduran, S. (1999, April). Understanding dialogic argumentation. Paper to be presented at the annual meeting of <u>American Educational Research Association</u>, Montreal, Canada.

Erduran, S., & Duschl, R. (1999, April). Acids and Bases Curriculum Unit: A context for nurturing students' epistemic reasoning in chemistry. Paper presented at the annual meeting of <u>American</u> Educational Research Association, Montreal, Canada.

Duschl, R., Ellenbogen, K., & Erduran, S. (1999, March). Promoting argumentation in middle school science classrooms: A Project SEPIA evaluation. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, USA.

Nagy, K., Collins, A., Duschl, R., & Erduran, S. (1999, March). Changes in science teachers' practice and beliefs: Progress toward implementing standards-based reforms. Paper presented at the annual conference of the National Association for Research in Science Teaching, Boston, USA.

Erduran, S. (1999, February). A discourse analysis of students' argumentation and reasoning in chemical modeling. w and roundtable presentations at the Spencer Foundation Forum, Berkeley, USA.

Erduran, S. (1998, June). Supporting growth of chemical knowledge in the classroom through modeling: A qualitative study of middle-school students' argumentation in chemistry. Paper accepted for presentation at the <u>Ethnographic and Qualitative Research in Education Conference</u>, Amherst, USA.

Erduran, S. (1998, April). Modeling in chemistry as cultural practice: A theoretical framework with implications for chemistry education. Paper presented at the annual meeting of the <u>American</u> Educational Research Association. San Diego, USA.

Erduran, S., & Duschl, R. A. (1998, January). The *Acids and Bases Curriculum*: a context for teaching the particulate nature of matter and changes in matter. Paper presented at the International Conference of the Association for the Education of Teachers in Science, Minneapolis, USA.

Erduran, S. (1997). Reflections on the proceedings from HPSST conferences: A profile of papers on chemistry education. Presentation at the <u>International History</u>, <u>Philosophy and Science Teaching Group North and South America Regional Conference</u>. Calgary: University of Calgary, Canada.

Duschl, R. A., Erduran, S., & Ellenbogen, K. (1997, December). Coordinating inquiry-based science units. Paper presented at the Southern Area Convention of the <u>National Science Teachers Association</u> Meeting, Nashville, USA.

Ellenbogen, K., & Erduran, S. (1997, October). The Acids and Bases Exhibit. Presentation at the annual conference of the <u>Association of Science-Technology Centers</u>, St. Louis, USA.

Erduran, S. (1997, March). Using the theory of evolution to characterize concepts and their change: A philosophical discussion with implications for science education. Paper presented as part of the Structured Knowledge and Conceptual Change Special Interest Group session at the annual meeting of the <u>American Educational Research Association</u>, Chicago, USA.

Duschl, R.A., & Erduran, S. (1997, March). Arguing and reasoning in the evaluation of scientific topics: Implications of students' discourse for teacher education. Paper presented at the annual meeting of the <u>National Association for Research in Science Teaching</u>, Chicago, USA.

Erduran, S. (1996, November). An overview of Project SEPIA. Presentation as part of the National Research Council Colloquium titled "Using the National Science Education Standards to Guide the Evaluation, Selection and Adaptation of Instructional Materials." <u>National Academy of Sciences</u>, Washington DC, USA.

Erduran, S. (1996, April). Analysis of physical science textbooks for conceptual frameworks on acids, bases and neutralization: Implications for students' conceptual understanding. Paper presented at the annual meeting of the American Educational Research Association, New York, USA.

Erduran, S. (1996, April). Reflections on Turkish Cypriot and Greek Cypriot students' perceptions of the Cyprus conflict: Implications for peace education. Paper presented at the annual meeting of the <u>American Educational Research Association</u>, New York, USA.

Duschl, R.A., Erduran, S., Petasis, L. L., Karas, R., Tabone, E., Adams, K., & Golden, T. (1995, October). Science Education through Portfolio Instruction and Assessment. Paper presented at the Regional Math and Science Collaborative, Pittsburgh, USA.

Duschl, R.A., Erduran, S., & Gitomer, D. H. (1995, April). Reasoning to the best design and causal explanation: A unit on buoyancy and flotation. Paper presented as part of the session titled "Portfolio Culture Classrooms: Merging Scientific Thinking with Conceptual Learning," at the annual meeting of the <u>American Educational Research Association</u>, San Francisco, USA.

Erduran, S. & Duschl, R.A. (1995, April). Using portfolios to assess students' conceptual understanding of flotation and buoyancy. Paper presented at the annual meeting of the <u>American Educational Research Association</u>, San Francisco, USA.

# **University of Oxford presentations**

Kaya, E., Erduran, S., Aksoz, B., Akgun, S., & Cilekrenkli, A. (2021, October). Perceptions of nature of science emerging in group discussions: a comparative account of pre-service teachers from Turkey and England. Annual Poster Conference. Online.

Barak, M., & Erduran, S. (2021, October). Investigating preservice teachers' understanding of nature of science using the Family Resemblance Approach. Annual Poster Conference. Online.

Erduran, S., & Guilfoyle, L. (2020, October). OARS Project. Annual Poster Conference. Online.

Erduran, S., Ioannidou, O. (2020, October). Project Calibrate. Annual Poster Conference. Online.

Erduran, S., Guilfoyle, L., Fancourt, N., Chan, J., Childs, A., Hillier, J., & Park, W. (2020, November). Deep learning across subjects: argumentation in science and religious education. Annual Poster Conference. Online.

Erduran, S., Guilfoyle, L., Fancourt, N., Chan, J., Childs, A., Hillier, J., & Park, W. (2019, June). Deep learning across subjects: argumentation in science and religious education. Subject Pedagogy Group Seminar.

Erduran, S., Childs, A., Cullinane, A., & Hillier, J. (2019, January). Project Calibrate: a systemic approach to summative assessment of practical science. Public Lecture.

Erduran, S. (2017, November). NARST Doctoral School. Presentation to Subject Pedagogy Group.

Erduran, S. (2017, May). What is this thing called 'science' and what should be included in education about it? Public Lecture.

#### **University of Limerick presentations**

Erduran, S. (2015, June). Characterising nature of science: A Family Resemblance Approach. Presentation at EPI-STEM event.

Erduran, S. (2015, May). Pint of Science, Master of Ceremonies, White House Pub.

Erduran, S. (2015, February). From Stereotypes to Reason: Argumentation as a tool for engaging and empowering girls in STEM. Athena SWAN Launch Event, Limerick, Ireland.

Erduran, S. (2015, January). Education with a big 'E' in STEM Education. Inaugural Lecture, University of Limerick, Ireland.

### **University of Bristol Presentations**

Erduran, S. (2013, March). Interdisciplinarity and Ethics: Perspectives from Science Education. Ethics Day, Graduate School of Education, University of Bristol.

Erduran, S. (2013, January). Introducing the Learning Inquiry Theme. Graduate School of Education, University of Bristol, School Seminar Programme.

Eligio, U. X., Yeh, C., & Erduran, S. (2012, November). Emotions and perspective taking during argumentation. Graduate School of Education, University of Bristol, School Seminar Programme.

Erduran, S. (2010, March). From Cyprus to UK via USA. Academic diaspora identity Stories Seminars.

Erduran, S. (2010, March). Mind the Gap: Science Teachers' Perspectives on Policy, Research and Practice on Argumentation and 'How Science Works'. Graduate School of Education, University of Bristol, School Seminar Programme.

Erduran, S. (2009, March). Step-In Project. Graduate School of Education, University of Bristol, School Seminar Programme. Graduate School of Education, University of Bristol, School Seminar Programme.

Erduran, S. (2008, November). Doing interdisciplinary research. CLIO Seminar.

Erduran, S. (2008, March). Doing academic writing. CLIO Research Day. Workshop.

# (8) RESEARCH & DEVELOPMENT FUNDING

2022-2024	Social Sciences Division John Fell Fund, £39,666,25 Co-Investigator, Future ETC (Future of Education and Training for the Climate) Interdisciplinary Research Hub
2022-2023	ESRC IAA Impact Award, £9567.59 Principal Investigator, Project FutuRISE: Future-Oriented Learning for Inclusive Science Education
2021-2023	United Arab Emirates University Research Fund, £272,543 (1,390,750 AED) Co-Investigator, SciKids Project: Understanding How Science Works in Early Years Education
2021-2024	European Union Horizon 2020, €1,065,138; €220,498 for Oxford Co-Investigator, Future-oriented Science EDucation to enhance Responsibility and engagement in the society of Acceleration and uncertainty (FEDORA)
2018-2021	Templeton World Charity Foundation, £354,470 Principal Investigator, Argumentation in Science and Religious Education: An Interdisciplinary Study in British Schools
2018-2020	Wellcome Trust & Royal Society, £270,773 Principal Investigator, Enhancing Summative Assessment of Practical Science: A Systemic Approach
2018-2019	Teaching Development and Enhancement Programme, £6000 Principal Investigator, Argumentation in Science and Mathematics Teaching

2018-2019	Ministry of Science and Technology, Taiwan, US\$40,625 Co-Investigator, <i>Scientists' views of nature of science and scientific inquiry</i>
2017	Lorentz Center and KNAW, NL, €37,500 Co-Organiser, International Workshop on <i>The Role of Science in a Changing World</i> held in Leiden, the Netherlands
2017	NARST & NTNU, US\$93,725.42 Co-Organiser, Sandra K. Abell Research Institute for PhD Students held in Taipei, Taiwan
2016-2018	Irish Research Council, €47,600 Co-Investigator, Exploring the personal epistemologies on pre-service science teachers' perceptions of education studies
2016 (05-10)	National Council for Curriculum and Assessment, Ireland, €24,325.36 Co-Investigator, <i>International Practice on ICT in Upper Second Level Education</i>
2016-2018	Bogazici University 165, 450 Turkish Liras (€56,948) Co-Investigator, Nature of science in science teacher education: A comparative research and development project
2016-2017	British Educational Research Association, £11,870 Co-Investigator, <i>Reviewing the potential and challenges of developing STEAM education through creative pedagogies for 21st learning</i>
2015	Johnson & Johnson, Women in STEM Initiative, US\$100,000 Coordinator, Promoting women in STEM careers
2015-2016	Science Foundation Ireland, €15,000 Principal Investigator, STeP into Science: Engaging Students, Teachers and Parents in Debates
2014-2015	Irish Independent Newspaper, €72,000 Principal Investigator, <i>Science Scope</i> and <i>Go Figure</i> Supplements
2015	NARST Linking Science Educators Program, \$5000 Co-Investigator, Infusing Scientific Practices in Science Teacher Education in Lebanon
2015	Irish Research Council, €6000 Co-Investigator, Fostering Communities of Inquiry

2014-2015	Wellcome Trust/NSF Science Learning +, \$115,000 Co-Investigator, A Collaboration to Develop Tools for Mapping and Assessing the Impact of STEM Experiences Across Different Ecologies
2014-2015	NARST Linking Science Educators Program, \$5000 Principal Investigator, Enhancing the Teaching and Learning of Argumentation in Science Lessons in Rwanda
2013-2015	TUBITAK/Marie-Currie Fellowship, €129,408 Revisiting Scientific Inquiry in the Classroom: Towards an Interdisciplinary Framework in Teaching and Learning
2009-2012	European Union, FP7, €4.7 Million Work package leader, S-TEAM: Science Teaching Advanced Methods
2008-2010	European Union, FP7, €780,226 Work package co-coordinator, Mind the Gap: Bridging Learning, Teaching, Research and Policy in Inquiry-Based Science Education
2009	Institute of Advanced Studies, Bristol, £2485 Seminar Chair, Bonding Chemistry: Promoting Interdisciplinary Studies in Education, Philosophy and Chemistry
2008-2009	Training and Development Agency for Schools, £9,930 Principal investigator, Fostering Evidence-based Science Teaching
2007-2008	Training and Development Agency for Schools, £19,405 Principal investigator, Science Teaching for Promoting Inclusion
2007-2010	ESRC/DfID, £638,948 Co-investigator, Student Performance in National Examinations: Assessing the Dynamics of Language
2007-2009	Department for International Development, £19,950 Co-investigator, <i>Developing Index for Inclusion in Tanzania</i>
2007-2010	Anglo-Catalan Society, €23,000 Co-investigator, A study of Catalan and British students' argumentation in science classrooms
2007	NARST Pre-Conference Workshop Grant, \$1500 Coordinator, <i>Methodological perspectives in the analysis of argumentation</i>
2005-2010	Department for International Development, £2.5 million

	Researcher, Research Consortium on "Improving Educational Quality in Low Income Countries"
2005-2006	Kaleidoscope, European Union, €8500 Principal applicant, <i>Promoting Argumentation through Information and Communication Technologies</i>
2002	Bid for Ideas and Evidence, Gatsby Foundation, £3500 Principal investigator, <i>Ideas and Evidence in Initial Teacher Training</i>
2003	Key Stage Three Strategy, £3500 Principal investigator, <i>Ideas and Evidence in Initial Teacher Training</i>
2003	Socrates Programme, European Union, €1000 Principal applicant
2002-2003	Gatsby Foundation, £240,000 Principal investigator, Continuing Professional Development for Accomplished Teaching of Science
2002-2003	British Council, £10,000 Co-investigator, <i>Promoting Girl Inclusion in Primary Science Education in Kenya</i>
2002-2003	Nuffield Foundation, £62,693 Co-investigator, <i>Ideas, Evidence and Argument in Science</i>
2004-2004	Spencer Foundation Dissertation Fellowship, \$17,000 Fellowship, Merging Curriculum Design with Chemical Epistemology: Case of Teaching Chemistry through Modeling
1991-1993	Fulbright Program, \$50,000 Fellowship, Retardation of Triolein Oxidation with Dinitrogen Trioxide

# (9) ACADEMIC LEADERSHIP AND CITIZENSHIP

#### **EDITORSHIPS**

Editor-in-Chief, *Science & Education*, from 2020 Associate Editor, *Science & Education*, 2018-2019 Editor, *International Journal of Science Education*, 2011-present Section Co-Editor, Science Studies, *Science Education*, 2006-present Editor, Science Education Focus Feature on Scientific Practices, 2015

Editor, International Journal of STEM Education Special Issue, 2015

Editor, Science & Education Special Issue, 2013

Editor, Special Issue, School Science Review, 2007

Co-Editor, Special Issue, Science Education, 2008

#### **EDITORIAL BOARD MEMBERSHIPS**

Research in STEM Education, 2021-present

Revista da Sociedade Brasileira de Ensino de Química, Brazilian Society for Chemistry Teaching, 2020-present

Research in Science and Technology Education, 2017-present

International Journal of STEM Education, 2014-present

Thinking Skills and Creativity, 2015-present

Science & Education Journal, 2015-present

Science: History, Philosophy and Education, Springer Book Series, 2014-present

Annales Universitatis Paedagogicae Cracoviensis Studia ad Didacticam Biologiae, 2014-present

British Journal of Interdisciplinary Studies, 2013-present

European Journal of Science and Mathematics Education, 2013-present

International Journal of Environmental and Science Education, 2012-present

Language Studies, Science and Engineering, 2011-present

Review of Educational Research, 2008-2014

International Journal of Science Education, 2003-present

Science Education, 1994-2020

Journal of Turkish Science Education, 2007-present

Electronic Journal of Science & Mathematics Education, 2009-present

Kirsehir Egitim Fakultesi Dergisi, 2009-present

Necatibey Egitim Fakultesi Dergisi, 2009-present

Journal of Science Teacher Education, 2002-2008

Eurasia Journal of Mathematics, Science and Technology Education, 2005-2012

#### **SERVICE TO ORGANISATIONS**

2019-present	Member, Salters' Institute
2015-2019	Member, ESERA Executive Board
2014-2016	Secretary, Royal Irish Academy Social Sciences Committee
2013-2015	Director, IHPST Council
2011-2013	International Coordinator, NARST Executive Board

#### INVITATIONS TO ADVISE ON NATIONAL AND INTERNATIONAL LEVELS

Israel Science Foundation, 2022

Emirates Advanced College of Education Promotion Committee, UAE, 2021

ANID, Centre Evaluations, Chile, 2021

Critical Thinking in Sustainability Education Project (Norway) Advisory Board, 2020-2023

NARST Distinguished Contributions to Research Award Committee, 2018-2021

Icelandic Research Fund, Grants Review Panel, 2020

University of Stockholm, Sweden Promotions Committee, 2020

American University of Beirut, Lebanon Promotions Committee, 2020

University of Helsinki, Finland Promotions Committee, 2020

Wellcome Trust, Science Education Research Programme, from 2018-present

CONICYT, National Commission for Scientific and Technological Research, Chile, 2018

Technion, Israel Institute of Technology, Promotions Committee, 2018

Leverhulme Trust, Fellowships Review, 2018

Education Endowment Foundation, Grants Review, 2018

Novo Nordisk Foundation, Denmark, Grant Review, 2018

University of Cyprus, Department of Education Promotions Committee, 2017

Education University of Hong Kong Promotions Committee, 2017

CONICYT, National Commission for Scientific and Technological Research, Chile, 2016

Trinity College Dublin, Accelerated Academic Promotions Evaluation, 2016

Mary Immaculate College, Senior Appointments Interview Panel, 2016

Weizmann Institute of Science, Department of Science Teaching Promotions Committee, 2015

University of Hong Kong, School of Education Promotions Committee, 2015

University of Wisconsin, School of Education Promotions Committee, 2015

University of Rwanda, College of Education Promotions Committee, 2015

Routledge Book Proposal Review, 2013-present

Springer Book Proposal Review, 2010-present

Institute of Education Press, Book Proposal Review, 2014

Estonian Research Council (ETAG), Grant Review, 2013

Israel Research Foundation, Grant Review, 2013

Singapore Institute of Education, Grant Review, 2013

44<sup>th</sup> International Union of Pure and Applied Chemistry Conference Organising Committee, 2013

EduQ Catalan Chemical Society Advisory Council, 2013-2015

American University of Beirut, Lebanon, Promotions Committee, 2012

Florida State University, USA, Promotions Committee, 2012

University of Aberythwyth, Wales, Promotions Committee, 2012

Bar Ilan University, Israel, Promotions Committee, 2011

Singapore National Research Council Grant Review, 2011

Weizmann Institute of Science, Israel, Dept of Science Teaching Promotions Committee, 2011

Institute of Education, University of London, UK Promotions Committee, 2011

South Korea National Research Council Book Project, 2011

University of Exeter EU Project on Diversity in Science Education, Advisory Committee, 2010-2012

Kew Gardens EU Project on Scientific Inquiry, Advisory Board, 2011-2013

Institute of Education, University of London ESRC Project, Advisory Board, 2008-2010

Irish Council for Science, Engineering and Technology, Grant Proposal Reviewer, 2009

Book Series Advisory Board, New Perspectives on Learning and Instruction, Routledge, 2008-present

UK History, Philosophy and Science Teaching Project, ASE, 2008-2009

University of Cyprus, Department of Education Promotions Committee, 2008

Economic and Social Research Council, Large Scale Grants Evaluation, 2007

European Union, Science and Society Awards Evaluation, 2007
Arts and Humanities Research Council, Proposal Evaluation, April 2005
TESSA Project funded by NSF, Pennsylvania State University, USA, 2004-2006.
University of Hannover Argumentation Project, German Research Council, Germany, 2005-2007
Wellcome Trust, Society Awards, Proposal Evaluation, June 2003

#### Journals - Occasional Reviewer

Cultural Studies of Science Education, 2017-present

Assessment in Education: Principles, Policy and Practice, 2017-present

International Journal of Research & Method in Education, 2016-present

Research in Science & Technological Education, 2015-present

International Journal of Science and Mathematics Education, 2015-present

Nordina, 2008-present (Norwegian Journal of Science Education)

Journal of the Learning Sciences, 2007-present

Contemporary Educational Psychology, 2007-present

Chemistry Education Research in Europe, 2007-present

HYLE, 2005-present

Cognition and Instruction, 2004-present

Teaching and Teacher Education, 2004-present

Journal of Research in Science Teaching, 2004-present

Journal of Chemical Education, 2003-present

Science & Education, 2001-present

School Science & Mathematics, 2002-2005

PERFILES: Review of Educational Research Journal, (Venezuela) 1996-2005

### **Conferences - Organization**

ESERA 2017 Conference, Dublin, Ireland (Steering Committee Member and Vice-Head of International Scientific Committee)

Limerick Symposium on Nature of Science in Science Education, Chair, November 2016 NARST Strand 13 (History, Philosophy and Sociology of Science) Coordinator, 2005-2007.

#### **Conferences- Committees**

International History, Philosophy and Science Teaching Conference Scientific Committee, 2015 The Second International History, Philosophy and Science Teaching Asian Regional Conference, Scientific Committee, 2014

IUPAC International Conference Committee, 2013

WCNTSE Conference Committee, 2013

National Association for Research in Science Teaching (USA), International Committee, 2007-2010

National Science Teachers Association (USA), Research Committee, from 2010

National Association for Research in Science Teaching (USA), Research Committee, 2009-2012

VIII Congreso Internacional sobre Investigación en la Didáctica de las Ciencias, International Scientific Committee (Spain), September 2009

European Science Education Research Association Scientific Committee, 2009

Frontiers of Science Education Research, International Scientific Committee (Cyprus), March 2009

National Association for Research in Science Teaching (USA), Financial Advisory Board, 2002-2004
National Association for Research in Science Teaching (USA), Programme Committee, 2005-2007
Scientific Committee, 1<sup>st</sup> National Conference on Contemporary Approaches to Science and Technology Education: Project-Based Learning, Ankara, Turkey, 2005

#### **Conferences - Reviewer**

American Educational Research Association Annual Meeting, 1997-present National Association for Research in Science Teaching Annual Meeting, 1997-present European Science Education Research Association Annual Meeting, 2001-present European Association for Research in Learning and Instruction, 2003-present

### **Conference- Chair/Discussant**

Chair, Assessment in science education, SAARMSTE Conference, 2021, online.

Discussant, "Crossing boundaires: examining and problematising interdisciplinarity in science education", ESERA Conference, Bologna, Italy, 2019

Discussant, "Epistemological Inquiry from the *Journal of Research in Science Teaching"*, ESERA Conference, Dublin, Ireland, 2017

Chair, "Defining and Understanding Scientific Practices Pre-Service Science Teacher Education," NARST Conference, Chicago, USA, 2015

Discussant, "The Nature of Science in science education research: a discussion about references and strategies Session", ESERA Conference Nicosia, Cyprus, 2013

Chair, "Contemporary Innovation in Science Education Research: Perspectives from the NARST Community", ESERA Conference Nicosia, Cyprus, 2013

Chair, "Science Education Policy and Practice in Europe," NARST Conference, Puerto Rico, 2013

Discussant, "Science Education for Diversity", NARST Conference, Indianapolis, USA, 2012

Chair, "Contributions from the European Science Education Research Association", NARST Conference, Indianapolis, USA, 2012

Chair, "Linking Science Educators Program in Rwanda: Supporting Learner-Centered Approaches in Rwandan Science Classrooms", NARST Conference, Indianapolis, USA, 2012

Chair, "Globalisation and science education," ESERA Conference, Lyon, France, 2011

Chair, "NARST's LSEP and SAARMSTE's 2010 Research School," NARST Conference, Orlando, FL, USA, 2011

Chair, "Exemplary research in science education from Australia and New Zealand that fosters engagement and understanding", NARST Conference, Orlando, FL, USA, 2011

Chair, Plenary talk by Professor G. Irzik, ESERA Conference, Istanbul, 2009

Chair, "Quality of evidence and arguments in science education", ESERA Conference, Istanbul, 2009

Chair, This Learning Life2 Conference Sessions, University of Bristol, Summer 2008

Chair, "Argumentation in Science Education: Evidence from Classroom-Based Research on Teaching and Learning", ESERA Conference, Malmo, 2007

Chair, "Argumentation in Science Education", NARST Conference, Vancouver, 2005

Chair, "Argumentation in Science Education, NARST Conference, Dallas, 2004

Discussant, "Communication and Discourse Analysis in the Science Classroom", ESERA Conference, 2003

### Associations - Reviewer/Evaluator

National Institute of Education, Singapore, Grant Evaluator (2015)

National Institute of Education, Singapore, Grant Evaluator (2013)

National Association for Research in Science Teaching (USA), Linking Science Educators Programme Proposal Reviewer (2009) and chair of grants scheme (2010-2013)

European Science Education Research Association, PhD School applications, 2008

National Association for Research in Science Teaching, International Travel Funds for Graduate and Postgraduate researchers, 2008, 2010-2013

# **Academic leadership at the University**

### **University of Oxford**

- Director of Research, 2020-2024
- -Athena SWAN Committee, 2017-2020
- -Ethics Committee, 2017-2018
- -MLT Exam Board, 2017-2020
- -Deputy Director of Research, 2018-2020
- -Interim review of Dr Miai Chankseliani, 2018

#### **University of Limerick**

- Department of Education & Professional Studies Research Committee Chair, 2015-2017
- Department of Education & Professional Studies Teaching and Learning Committee, 2015-2017
- Department of Economics Head of Department Interview Board, 2016
- Mary Immaculate College Head of Department Interview Board, 2016
- Faculty of Education and Health Sciences Interview Board for Assistant Deans, 2016
- Staff mentorship, 2015-2017
  - Orla McCormack, Noralee Kennedy, Geraldine Moonie-Simmie
- University Buildings Committee, 2015-2017
- University Retention Committee, Autumn 2015, Spring 2016
- Faculty of Education and Health Sciences Research Committee, 2014-2017
- Athena SWAN University Committee, 2014-2017
- EPS Social Media Platform Committee, 2014-2017
- Director of EPI•STEM, National Centre for STEM Education, 2014-2017
- EPI STEM Publications Group meetings convenor, 2014-2017
- EPI•STEM Reading Group convenor, 2014-2017

# **University of Bristol**

- Director of Learning Inquiry Thematic Group, 2012-2014
- Faculty Promotions Committee, 2012-13
- Research Mentor and Staff Reviewer, 2008-2014
- Deputy Director of Research, from 2009-2012
- Programme Director, MSc Science & Education, from January 2009
- M-Level Restructuring Group Member, from 2011-2014

- REF Working Group Member, from 2010-present
- Strategy Group Member, from 2010-2011
- Science Education Research Network Coordinator, from 2005-2011
- EthicNet Committee Member, Graduate School of Education, from Summer 2009-present
- Staff reviews and mentoring of staff, from 2007-present
- DICE (Developing Communities of Inquiry in Education) Co-Coordinator, Graduate School of Education, from Spring 2008
- Faculty Promotions Committee, from September 2008-2011
- Faculty of Engineering Promotions Committee Observer, 2010
- School of Policy Studies Promotions Committee Observer, 2009
- PGCE Science Coordinator, Autumn 2007-2009
- PGCE Chemistry Coordinator, Spring 2005-2007
- Faculty Board, Faculty of Social Sciences and Law, Autumn 2006-2011
- Centre for Excellence in Teaching and Learning Management Board, School of Chemistry, from Summer 2005-2010
- Science Learning Centre South West Management Board, at-Bristol, September 2005-February 2007
- Learning, Knowledge and Interactive Technologies Reading Group, Graduate School of Education, from September 2005-Autumn 2006
- Science specialist, Research Programme Consortium on Implementing Quality Education in Low Income Countries, funded by Department for International Development, from October 2005-2009
- PhD Conference Organisation, Graduate School of Education, Summer 2005
- Mentoring (2006-present) and managing (Autumn 2007) of PGCE Science Staff including technician

# **Professional Activities Outside the University**

#### **External Examination**

PhD External Examination

University College London, UK, Paulina Bravo Gonzalez, PhD Viva, June 2021

University of Groningen, Netherlands, Anne Lammers, PhD Viva, November 2020

University of Queensland, Australia, PhD Viva, Charlotte Pezaro, January 2018

Dublin City University, Ireland, PhD viva, Paul Grimes, November 2016

Bahauddin Zakria University, Pakistan, PhD evaluation, Ehsan Qadir Malik, September 2016

University of Helsinki, Finland, PhD Opponent, Suvi Tala, February 2015

Kristianstad University, Sweden, PhD Examination, Lotta Leden, February 2015

University of the Witwatersand, South Africa, PhD examination, Audrey Msimanga, 2012

University of Otago, New Zealand, PhD Examination, Kathleen Rice, 2012

University of Sheffield, UK, EdD viva, Chrystalla Lymbouridou, 2011

King's College London, UK, PhD viva, Andri Christodolou, 2011

Gothenburg University, Sweden, PhD viva opponent, Clas Olander, 2009

King's College London, PhD Viva, Ellen McCallie, 2009

King's College London, PhD Viva, Maria Evagorou, 2009

Linkoping University, Sweden, PhD Viva, Carl-Johan Rundgren, 2008

#### MSc External Examination

Bogazici University, Turkey, MSc Viva, Gozde Kurt, June 2022

Bogazici University, Turkey, MSc Viva, Dilara Goren, July 2021

Bogazici University, Turkey, MSc Viva, Beyza Okan, June 2021

Bogazici University, Turkey, MSc Viva, Aysegul Cilekrenkli, May 2019

Bogazici University, Turkey, MSc Viva, Melike Alayoglu, April 2018

Bogazici University, Turkey, MSc Viva, Selin Akgun, April 2018

Bogazici University, Turkey, MSc Viva, Selin Akgun, June 2017

Bogazici University, Turkey, MSc Viva, Cansu Demirtas, May 2017

Bogazici University, Turkey, MSc Viva, Merve Kizanlik, June 2017

Bogazici University, Turkey, MSc Viva, Nihal Karabas, March 2017

University of Malta, MSc dissertation, 2008

# Invitations and hosting of science educators' visits to Department of Education, University of Oxford

Associate Professor Kennedy Chan, University of Hong Kong, Hong Kong

Jean Moon, Tidemark Institute, USA

Professor Ying Shao Hsu, National Taiwan Normal University, Taiwan

Associate Professor Ebru Kaya, Bogazici University, Turkey

Professor Anat Zohar, Hebrew University of Jerusalem, Israel

Yan Wan, University of Helsinki, Finland

Dr Bianca Reinisch, Freie Universität Berlin, Germany (ESERA Travel Award)

Dr Jen-Yi Wu, National Taiwan Normal University, Taiwan (Ministry of Science and Technology Grant Award)

Professor Mei-Hung Chiu, National Taiwan Normal University, Taiwan

# Invitations and hosting of science educators' visits to Department of Education and Professional Studies, University of Limerick

Dr Bahadir Namdar, R. T. Erdogan University, Turkey (Erasmus Mobility Grant)

Professor Ian Abrahams, University of Lincoln, UK

Dr Guillermina Gavaldon, University of Alcala, Spain

Dr Senay Purzer, Purdue University, USA

Professor Hae Ae Seo, Pusan University, South Korea

Professor Hamsa Venkatakrishnan, University of Witwatersrand, South Africa

Dr Audrey Msimanga, University of Witwatersrand, South Africa (ESERA Early Career Travel Award)

Renata Orofino, University of Sao Paolo, Brazil

Dr Carolina Martin-Gamez, University of Malaga, Spain

Professor Michael Matthews, University of New South Wales, Australia

# Invitation and hosting of science educators' visits to the Graduate School of Education, University of Bristol

Professor Samir Okasha, University of Bristol Department of Philosophy, Autumn 2013

Dr Zoe Leindhardt, University of Bristol School of Physics, Autumn 2013

Professor Jim Ryder, University of Leeds, Summer 2013

Yasemin Ozdem, Middle East Technical University, Turkey, Spring 2013

Dr Andri Christodolou, University of Southampton, UK, Spring 2013

Professor John Gilbert, University of Reading, UK, Autumn 2013

Professor Rosaria Justi, University of Minas Gerais, Brazil, 2012-2013

Beatrix Perez, Universidad Santiago de Compostela, Spain (Spring 2011)

Dr Aybuke Pabuccu, Ahi Evran University, Turkey (Autumn 2011), YOK Scholarship

Dr Maria Evagorou, University of Nicosia, Cyprus (Summer 2011), ESERA Travel Award

Dr David Cross, University of Lyon, France (Autumn 2010), STEAM project researcher

Dr Ebru Mugaloglu, Bogazici University, Turkey (2010-2011), Postdoctoral Fellow, TUBITAK

Dr Erik Fouladi, Volda University College, Norway (Summer 2010)

Dr Jee Young Park, Seoul National University, Korea (2009-2010), Postdoctoral Fellow, Korean Research Council Fellowship

Dr Kerstin Kremer, Justus Liebig University Giessen, Germany (Autumn 2009)

Yasemin Ozdem, Middle East Technical University, Turkey (Spring 2009), ESERA Travel Award

Sandra Gilabert, University of Barcelona, Spain (Spring 2009), Generalitat de Catalunya Award

Professor Merce Izquierdo, Autonoma University of Barcelona, Spain (Spring 2009)

Professor Paul Needham, University of Stockholm, Sweden (Spring 2009)

Dr Robin Hendry, Durham University, UK (Spring 2009)

Kate Rice, University of Otego, New Zealand (Spring 2009)

Maria Evagorou, King's College London (Spring 2009)

Aikaterini Konstantinidou, University of Barcelona, Spain (Summer 2008), ESERA Travel Award

Dr Rosa Villamanan, University of Valladolid, Spain (Spring 2007)

Dr Marina Castells, University of Barcelona, Spain (Spring 2007)

Professor Avi Hofstein, Weizmann Institute of Science, Israel (Summer 2006)

Dr Shirley Simon, Institute of Education, University of London (Spring 2006)

Dr Agustin Aduriz-Bravo, University of Buenos Aires, Argentina (Autumn 2006)

Professor Maria P. Jimenez-Aleixandre, University of Santiago de Compostela, Spain (Spring 2005)

#### **Public Engagement Event Coordination**

Pint of Science, Limerick, May 18-19, 2015

Mallow Science Family Fair, Mallow, October 12, 2014