

Sibel Erduran

List of Publications by Year in descending order

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Version: 2024-02-01

144
papers

5,856
citations

193469

27
h-index

89383

70
g-index

156
all docs

156
docs citations

156
times ranked

2645
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigating Scientists's Views of the Family Resemblance Approach to Nature of Science in Science Education. <i>Science and Education</i> , 2024, 33, 73-102.	2.9	12
2	Nature of Engineering. <i>Science and Education</i> , 2024, 33, 679-697.	2.9	11
3	Using the family resemblance approach to inform STEAM education. <i>London Review of Education</i> , 2024, 22, .	1.8	0
4	The role of research experiences in developing pre-service teachers's epistemic beliefs. <i>Teaching and Teacher Education</i> , 2024, 144, 104599.	3.4	0
5	Designing practical science assessments in England: students's engagement and perceptions. <i>Research in Science and Technological Education</i> , 2023, 41, 190-210.	2.3	10
6	The Impact of Collaboration Between Science and Religious Education Teachers on Their Understanding and Views of Argumentation. <i>Research in Science Education</i> , 2023, 53, 121-137.	2.4	13
7	Student, Teacher, and Scientist Views of the Scientific Enterprise: An Epistemic Network Re-analysis. <i>International Journal of Science and Mathematics Education</i> , 2023, 21, 347-375.	2.6	14
8	Argumentation and intellectual humility: a theoretical synthesis and an empirical study about students's warrants. <i>Research in Science and Technological Education</i> , 2023, 41, 1350-1371.	2.3	3
9	Teachers' perceptions of Brandon's Matrix as a framework for the teaching and assessment of scientific methods in school science. <i>Research in Science Education</i> , 2023, 53, 193-212.	2.4	8
10	Nature of Science in Preservice Science Teacher Education's Case Studies of Irish Pre-service Science Teachers. <i>Journal of Science Teacher Education</i> , 2023, 34, 201-223.	2.7	14
11	A Systematic Review of Research on Family Resemblance Approach to Nature of Science in Science Education. <i>Science and Education</i> , 2023, 32, 1637-1673.	2.9	13
12	Tracing Preservice Teachers's Understanding of Nature of Science Through Their Drawings and Writing. <i>Research in Science Education</i> , 2023, 53, 507-523.	2.4	6
13	's a lesson with no correct answer's design issues in preservice teachers's use of history of science for lesson planning. <i>International Journal of Science Education</i> , 2023, 45, 181-203.	2.0	2
14	Science communication in the media and human mobility during the COVID-19 pandemic: a time series and content analysis. <i>Public Health</i> , 2023, 218, 106-113.	3.0	9
15	Early years education teachers's perceptions of nature of science. <i>International Journal of Science Education</i> , 2023, 45, 613-635.	2.0	3
16	Argumentation in Physics Education Research: Recent Trends and Key Themes. , 2023, , 16-1-16-32.		1
17	Communicating science in the COVID-19 news in the UK during Omicron waves: exploring representations of nature of science with epistemic network analysis. <i>Humanities and Social Sciences Communications</i> , 2023, 10, .	3.1	6
18	Magnifying the Scope of Nature of Science (NOS) Toward the Whole: An Investigation of NOS Representation in Early Childhood Science Education Standards. <i>Canadian Journal of Science, Mathematics and Technology Education</i> , 2023, 23, 210-227.	1.3	2

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19	AI is transforming how science is done. Science education must reflect this change.. Science, 2023, 382, .	20.9	6
20	Infusing epistemic perspectives on scientific practices in science teacher education. Education Et Didactique, 2023, 17, 75-92.	0.3	0
21	Science and Religious Education Teachersâ€™ Views of Argumentation and Its Teaching. Research in Science Education, 2022, 52, 655-673.	2.4	23
22	Exploring the impact of positing entrepreneurship in nature of science: initial science teachers' perspectives. Education and Training, 2022, 64, 996-1017.	3.3	1
23	Enhancing teachersâ€™ STEM understanding through observation, discussion and reflection. Journal of Education for Teaching, 2022, 48, 576-591.	2.1	6
24	Secondary teachersâ€™ views about teaching and assessing the diversity of scientific methods in practical science. Journal of Education for Teaching, 2022, 48, 592-608.	2.1	7
25	Mapping the nature of science in the Italian physics curriculum: from missing links to opportunities for reform. International Journal of Science Education, 2022, 44, 115-135.	2.0	28
26	The Importance of Research in Science Teacher Education. , 2022, , 5-15.		0
27	Too Philosophical, Therefore Useless for Science Education?. Science and Education, 2022, 31, 563-567.	2.9	6
28	Investigating Pre-Service Teachersâ€™ Understanding of Nature of Science: Contributions of An Assessment Tool Based on the Reconceptualized Family Resemblance Approach. Interdisciplinary Journal of Environmental and Science Education, 2022, 18, e2290.	0.7	1
29	Secondary teachersâ€™ instructional practices on argumentation in the context of science and religious education. International Journal of Science Education, 2022, 44, 1251-1276.	2.0	5
30	Humanising the nature of science: an analysis of the science curriculum in Norway. International Journal of Science Education, 2022, 44, 1601-1618.	2.0	17
31	INTERDISCIPLINARITY FOR FUTURE-ORIENTED EDUCATION: INSIGHT FROM EDUCATIONAL RESEARCH IN ENGLAND. ICERI2019 Proceedings, 2022, , .	0.0	1
32	Perceptions of Nature of Science Emerging in Group Discussions: a Comparative Account of Pre-service Teachers from Turkey and England. International Journal of Science and Mathematics Education, 2021, 19, 1375-1396.	2.6	30
33	<i>â€œEvaluate What I Was Taught, Not What You Expected Me to Know</i>â€™. Evaluating Studentsâ€™ Arguments Based on Science Teachersâ€™ Adaptations to Toulminâ€™s Argument Pattern. Journal of Science Teacher Education, 2021, 32, 306-324.	2.7	15
34	An investigation into secondary teachersâ€™ views of argumentation in science and religious education. Journal of Beliefs and Values, 2021, 42, 190-204.	0.7	19
35	Beyond Hypothesis Testing. Science and Education, 2021, 30, 345-364.	2.9	21
36	Science Education and the Pandemic, 1 Year On. Science and Education, 2021, 30, 201-204.	2.9	7

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37	List of Reviewers Contributing to Volume 29, 2020. Science and Education, 2021, 30, 205-208.	2.9	0
38	Respect for Evidence: Can Science Education Deliver It?. Science and Education, 2021, 30, 441-444.	2.9	3
39	Methodological Diversity in HPS-Informed Science Education Research. Science and Education, 2021, 30, 783-784.	2.9	0
40	Recalibrating the evolution versus creationism debate for student learning: towards students'™ evaluation of evidence in an argumentation task. International Journal of Science Education, 2021, 43, 2974-2995.	2.0	10
41	The impact of epistemic framing of teaching videos and summative assessments on students'™ learning of scientific methods. International Journal of Science Education, 2021, 43, 2885-2910.	2.0	8
42	Argumentation in science and religion: match and/or mismatch when applied in teaching and learning?. Journal of Education for Teaching, 2020, 46, 129-131.	2.1	13
43	Assessment of practical science in high stakes examinations: a qualitative analysis of high performing English-speaking countries. International Journal of Science Education, 2020, 42, 1544-1567.	2.0	14
44	Nature of 'STEM'. Science and Education, 2020, 29, 781-784.	2.9	20
45	Does Research on Nature of Science and Social Justice Intersect? Exploring Theoretical and Practical Convergence for Science Education. Science: Philosophy, History and Education, 2020, , 97-113.	0.0	4
46	Science Education in the Era of a Pandemic. Science and Education, 2020, 29, 233-235.	2.9	65
47	The Nature of STEM Disciplines in the Science Education Standards Documents from the USA, Korea and Taiwan. Science and Education, 2020, 29, 899-927.	2.9	61
48	Bringing Nuance to 'the Science' in Public Policy and Science Understanding. Science and Education, 2020, 29, 487-489.	2.9	8
49	The "tipping point" for educational research: The role of pre-service science teachers'™ epistemic beliefs in evaluating the professional utility of educational research. Teaching and Teacher Education, 2020, 90, 103033.	3.4	23
50	Editorial Vision for Science & Education. Science and Education, 2020, 29, 1-5.	2.9	4
51	Investigating the Epistemic Nature of STEM: Analysis of Science Curriculum Documents from the USA Using the Family Resemblance Approach. Advances in STEM Education, 2020, , 137-155.	0.0	5
52	Practical Learning Resources and Teacher Education Strategies for understanding Nature of Science. Science: Philosophy, History and Education, 2020, , 377-397.	0.0	11
53	Defining the Epistemic Core of Chemistry. Science: Philosophy, History and Education, 2019, , 25-49.	0.0	0
54	Pre-service Chemistry Teachers'™ Representations and Perceptions of the Epistemic Core: A Thematic Analysis. Science: Philosophy, History and Education, 2019, , 105-128.	0.0	0

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55	Contributions of the Family Resemblance Approach to Nature of Science in Science Education. <i>Science and Education</i> , 2019, 28, 311-328.	2.9	65
56	Epistemic Beliefs and Teacher Education. <i>Science: Philosophy, History and Education</i> , 2019, , 51-80.	0.0	2
57	Philosophy of Chemistry and Chemistry Education. <i>Science: Philosophy, History and Education</i> , 2019, , 1-24.	0.0	1
58	STEM and gender at university: focusing on Irish undergraduate female studentsâ€™ perceptions. <i>Journal of Applied Research in Higher Education</i> , 2019, 11, 770-787.	2.0	9
59	Investigating Coherence About Nature of Science in Science Curriculum Documents. <i>Science and Education</i> , 2019, 28, 291-310.	2.9	43
60	Learning and Teaching About Philosophy of Chemistry: Teacher Educatorsâ€™ Reflections. <i>Science: Philosophy, History and Education</i> , 2019, , 149-168.	0.0	0
61	Towards Development of Epistemic Identity in Chemistry Teacher Education. <i>Science: Philosophy, History and Education</i> , 2019, , 169-189.	0.0	0
62	Assessment of Practical Chemistry in England: An Analysis of Scientific Methods Assessed in High-Stakes Examinations. , 2019, , 135-147.		4
63	Measuring informal STEM learning supports across contexts and time. <i>International Journal of STEM Education</i> , 2019, 6, .	5.4	29
64	Investigating the diversity of scientific methods in high-stakes chemistry examinations in England. <i>International Journal of Science Education</i> , 2019, 41, 2201-2217.	2.0	20
65	Understanding aims and values of science: developments in the junior cycle specifications on nature of science and pre-service science teachersâ€™ views in Ireland. <i>Irish Educational Studies</i> , 2019, 38, 43-70.	2.5	24
66	Reconceptualised family resemblance approach to nature of science in pre-service science teacher education. <i>International Journal of Science Education</i> , 2019, 41, 21-47.	2.0	75
67	Argumentation and interdisciplinarity: reflections from the Oxford Argumentation in Religion and Science Project. <i>Disciplinary and Interdisciplinary Science Education Research</i> , 2019, 1, .	2.9	19
68	Incorporating the Epistemic Core in Teacher Education Practice. <i>Science: Philosophy, History and Education</i> , 2019, , 81-104.	0.0	0
69	The Impact of Teacher Education on Understanding the Epistemic Core: Focusing on One Pre-service Chemistry Teacher. <i>Science: Philosophy, History and Education</i> , 2019, , 129-147.	0.0	0
70	Epilogueâ€”Understanding STEM for STEM Education: Toward a Systems Approach. , 2019, , 205-213.		0
71	Toulminâ€™s argument pattern as a â€œhorizon of possibilitiesâ€”in the study of argumentation in science education. <i>Cultural Studies of Science Education</i> , 2018, 13, 1091-1099.	1.4	22
72	Drawing Nature of Science in Pre-service Science Teacher Education: Epistemic Insight Through Visual Representations. <i>Research in Science Education</i> , 2018, 48, 1133-1149.	2.4	48

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73	Looking at the Social Aspects of Nature of Science in Science Education Through a New Lens. <i>Science and Education</i> , 2018, 27, 457-478.	2.9	22
74	Language, Literacy and Science Learning for English Language Learners: Teacher Meta Talk Vignettes from a South African Science Classroom. , 2018, , 97-111.		1
75	From Lists in Pieces to Coherent Wholes: Nature of Science, Scientific Practices, and Science Teacher Education. , 2018, , 3-24.		14
76	Interdisciplinarity and Science Education. , 2017, , 81-90.		21
77	Beyond rote learning in organic chemistry: the infusion and impact of argumentation in tertiary education. <i>International Journal of Science Education</i> , 2017, 39, 1154-1172.	2.0	28
78	The pedagogy of argumentation in science education: science teachers' instructional practices. <i>International Journal of Science Education</i> , 2017, 39, 1443-1464.	2.0	36
79	Argumentation in science education as an evolving concept: Following the object of activity. <i>Learning, Culture and Social Interaction</i> , 2017, 14, 51-66.	1.9	23
80	Abandoning Patchwork Approaches to Nature of Science in Science Education. <i>Canadian Journal of Science, Mathematics and Technology Education</i> , 2017, 17, 46-52.	1.3	28
81	Visualizing the Nature of Science: Beyond Textual Pieces to Holistic Images in Science Education. <i>Contributions From Science Education Research</i> , 2017, , 15-30.	0.0	9
82	Consolidation of conceptual change, argumentation, models and explanations. , 2017, , 151-162.		2
83	Emotional Modulation of Perspective Taking. , 2016, , 3-20.		1
84	Investigating students' engagement in epistemic and narrative practices of chemistry in the context of a story on gas behavior. <i>Chemistry Education Research and Practice</i> , 2016, 17, 523-531.	2.7	16
85	Argumentation in science education as a systemic activity: An activity-theoretical perspective. <i>International Journal of Educational Research</i> , 2016, 79, 150-166.	2.2	30
86	From FRA to RFN, or How the Family Resemblance Approach Can Be Transformed for Science Curriculum Analysis on Nature of Science. <i>Science and Education</i> , 2016, 25, 1115-1133.	2.9	100
87	Scientific Argumentation and Deliberative Democracy: An Incompatible Mix in School Science?. <i>Theory Into Practice</i> , 2016, 55, 302-310.	1.8	14
88	Reconceptualizing the Nature of Science for Science Education. <i>Science and Education</i> , 2016, 25, 147-164.	2.9	125
89	Trends in Science Education Research in Turkey: A Content Analysis of Key International Journals from 1998-2012. , 2016, , 275-288.		1
90	Introduction to the Focus on Scientific Practices. <i>Science Education</i> , 2015, 99, 1023-1025.	3.0	10

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91	The role of visual representations in scientific practices: from conceptual understanding and knowledge generation to "seeing" how science works. <i>International Journal of STEM Education</i> , 2015, 2, .	5.4	92
92	Research trends on argumentation in science education: a journal content analysis from 1998-2014. <i>International Journal of STEM Education</i> , 2015, 2, .	5.4	108
93	Promoting argumentation in the context of chemistry stories. , 2015, , 143-161.		4
94	Regaining focus in Irish Junior Cycle Science: potential new directions for curriculum and assessment on Nature of Science. <i>Irish Educational Studies</i> , 2014, 33, 335-350.	2.5	53
95	Reconceptualizing Nature of Science for Science Education. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 1-18.	0.0	30
96	Philosophy of Chemistry in Chemical Education: Recent Trends and Future Directions. , 2014, , 287-315.		6
97	Laws and Explanations in Biology and Chemistry: Philosophical Perspectives and Educational Implications. , 2014, , 1203-1233.		12
98	Science curriculum reform in South Africa: Lessons for professional development from research on argumentation in science education. <i>Education As Change</i> , 2014, 18, S33-S46.	0.6	28
99	Scientific Practices. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 67-89.	0.0	6
100	Methods and Methodological Rules. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 91-112.	0.0	1
101	Revisiting the Nature of Science in science education: Towards a holistic account of science in science teaching and learning. <i>European Journal of Science and Mathematics Education</i> , 2014, 2, 14-25.	1.1	4
102	Aims and Values of Science. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 41-65.	0.0	1
103	Family Resemblance Approach to Characterizing Science. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 19-40.	0.0	3
104	Towards Generative Images of Science in Science Education. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 163-188.	0.0	0
105	Science as a Social-Institutional System. <i>Contemporary Trends and Issues in Science Education</i> , 2014, , 137-162.	0.0	2
106	Integrating Epistemological Perspectives on Chemistry in Chemical Education: The Cases of Concept Duality, Chemical Language, and Structural Explanations. <i>Science and Education</i> , 2013, 22, 1741-1755.	2.9	16
107	Interactions of Economics of Science and Science Education: Investigating the Implications for Science Teaching and Learning. <i>Science and Education</i> , 2013, 22, 2405-2425.	2.9	26
108	Philosophy, Chemistry and Education: An Introduction. <i>Science and Education</i> , 2013, 22, 1559-1562.	2.9	10

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109	The Effect of Argumentative Task Goal on the Quality of Argumentative Discourse. <i>Science Education</i> , 2013, 97, 497-523.	3.0	78
110	Science Curriculum Reform on "Scientific Literacy for All"™ Across National Contexts: Case Studies of Curricula from England & Wales and Hong Kong. <i>Cultural Studies of Science Education</i> , 2013, , 179-201.	0.0	2
111	The Nature of Pre-service Science Teachers'™ Argumentation in Inquiry-oriented Laboratory Context. <i>International Journal of Science Education</i> , 2013, 35, 2559-2586.	2.0	61
112	Argumentation in Science Education Research. , 2012, , 253-289.		36
113	High school students'™ perceptions of argumentation. <i>Procedia, Social and Behavioral Sciences</i> , 2010, 2, 3971-3975.	0.5	11
114	Cool Argument: Engineering Students'™ Written Arguments about Thermodynamics in the Context of the Peltier Effect in Refrigeration. <i>Educacion Quimica</i> , 2009, 20, 119-125.	0.1	16
115	Technology-Enhanced Learning in Science. , 2009, , 121-134.		8
116	Funding Patterns and Priorities: An International Perspective. , 2009, , 467-509.		0
117	Introduction to special issue: Science Studies and Science Education. <i>Science Education</i> , 2008, 92, 385-388.	3.0	6
118	Arguing to learn and learning to argue: Case studies of how students' argumentation relates to their scientific knowledge. <i>Journal of Research in Science Teaching</i> , 2008, 45, 101-131.	3.4	346
119	Argumentation and the Learning of Science. , 2007, , 377-388.		9
120	Methodological Foundations in the Study of Argumentation in Science Classrooms. <i>Science & Technology Education Library</i> , 2007, , 47-69.	0.0	57
121	Argumentation in Science Education: An Overview. <i>Science & Technology Education Library</i> , 2007, , 3-27.	0.0	232
122	Developing epistemologically empowered teachers: examining the role of philosophy of chemistry in teacher education. <i>Science and Education</i> , 2007, 16, 975-989.	2.9	38
123	Breaking the law: promoting domain-specificity in chemical education in the context of arguing about the periodic law. <i>Foundations of Chemistry</i> , 2007, 9, 247-263.	1.0	48
124	Exemplary Teaching of Argumentation: A Case Study of Two Science Teachers. , 2007, , 403-415.		5
125	Learning to Teach Argumentation: Case Studies of Pre-service Secondary Science Teachers. <i>Eurasia Journal of Mathematics, Science and Technology Education</i> , 2006, 2, 1.	1.3	74
126	Guest editorial: Science studies and science education call for papers deadline: March 31, 2007. <i>Science Education</i> , 2006, 90, 961-964.	3.0	15

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127	Learning to Teach Argumentation: Research and development in the science classroom. International Journal of Science Education, 2006, 28, 235-260.	2.0	481
128	Learning Science through a Historical Approach: Does It Affect the Attitudes of Non-Science-Oriented Students towards Science?. International Journal of Science and Mathematics Education, 2005, 3, 485-507.	2.6	33
129	Applying the Philosophical Concept of Reduction to the Chemistry of Water: Implications for Chemical Education. Science and Education, 2005, 14, 161-171.	2.9	19
130	The Role of Argumentation in Developing Scientific Literacy. , 2005, , 381-394.		17
131	TAPping into argumentation: Developments in the application of Toulmin's Argument Pattern for studying science discourse. Science Education, 2004, 88, 915-933.	3.0	882
132	Enhancing the quality of argumentation in school science. Journal of Research in Science Teaching, 2004, 41, 994-1020.	3.4	1,020
133	Interdisciplinary Characterizations of Models and the Nature of Chemical Knowledge in the Classroom. Studies in Science Education, 2004, 40, 105-138.	5.5	58
134	Philosophy of Chemistry: An Emerging Field with Implications for Chemistry Education. Science and Education, 2001, 10, 581-593.	2.9	56
135	Nitrite Effects on Formation of Volatile Oxidation Products from Triolein. Journal of Food Science, 1995, 60, 946-948.	3.2	9
136	Understanding argumentation about socio-scientific issues on energy: a quantitative study with primary pre-service teachers in Spain. Research in Science and Technological Education, 0, , 1-21.	2.3	16
137	Ä–Äretmen EÄYitiminde Bilimin DoÄYasÄ±: BÄ¼tÄ¼nse Bir YaklaÄY±m. Necatibey EÄYitim FakÄ¼ltesi Elektronik Fen Ve Matematik EÄYitimi Dergisi, 0, , 464-501.	0,1	11
138	List of Reviewers Contributing to Volume 30, 2021. Science and Education, 0, , 1.	2.9	0
139	Policymakersâ€™ Views of Future-Oriented Skills in Science Education. Frontiers in Education, 0, 7, .	2.2	1
140	Translation and validation of a questionnaire for measuring teachersâ€™ views on nature of science. Research in Science and Technological Education, 0, , 1-16.	2.3	1
141	Nature of science in science textbooks for vocational training in Norway. Research in Science and Technological Education, 0, , 1-16.	2.3	5
142	Investigating in-service teachersâ€™ STEM literacy: the role of subject background and gender. Research in Science and Technological Education, 0, , 1-21.	2.3	3
143	The impact of artificial intelligence on scientific practices: an emergent area of research for science education. International Journal of Science Education, 0, , 1-8.	2.0	2
144	Nature of science and domain-specificity: investigating the coverage of nature of science in physics, chemistry and biology curricula across grade levels. International Journal of Science Education, 0, , 1-31.	2.0	0