Jonathan F Osborne

List of Publications by Year
in descending order

81 papers	15,114 citations	50170 46 h-index	66788 78 g-index
84 all docs	84 docs citations	84 times ranked	5526 citing authors

#	Article	IF	Citations
1	Attitudes towards science: A review of the literature and its implications. International Journal of Science Education, 2003, 25, 1049-1079.	1.0	1,982
2	Establishing the norms of scientific argumentation in classrooms. Science Education, 2000, 84, 287-312.	1.8	1,516
3	Enhancing the quality of argumentation in school science. Journal of Research in Science Teaching, 2004, 41, 994-1020.	2.0	995
4	TAPping into argumentation: Developments in the application of Toulmin's Argument Pattern for studying science discourse. Science Education, 2004, 88, 915-933.	1.8	855
5	Supporting and Promoting Argumentation Discourse in Science Education. Studies in Science Education, 2002, 38, 39-72.	3.4	770
6	What ?ideas-about-science? should be taught in school science? A Delphi study of the expert community. Journal of Research in Science Teaching, 2003, 40, 692-720.	2.0	768
7	Arguing to Learn in Science: The Role of Collaborative, Critical Discourse. Science, 2010, 328, 463-466.	6.0	588
8	Learning to Teach Argumentation: Research and development in the science classroom. International Journal of Science Education, 2006, 28, 235-260.	1.0	475
9	The place of argumentation in the pedagogy of school science. International Journal of Science Education, 1999, 21, 553-576.	1.0	465
10	â€œDoingâ€•science versus â€œbeingâ€•a scientist: Examining 10/11â€year€old schoolchildren's constructions of science through the lens of identity. Science Education, 2010, 94, 617-639.	1.8	423
11	Students' questions: a potential resource for teaching and learning science. Studies in Science Education, 2008, 44, 1-39.	3.4	400
12	Pupils' views of the role and value of the science curriculum: A focus-group study. International Journal of Science Education, 2001, 23, 441-467.	1.0	391
13	Science Aspirations, Capital, and Family Habitus. American Educational Research Journal, 2012, 49, 881-908.	1.6	380
14	Teaching Scientific Practices: Meeting the Challenge of Change. Journal of Science Teacher Education, 2014, 25, 177-196.	1.4	348
15	Arguing to learn and learning to argue: Case studies of how students' argumentation relates to their scientific knowledge. Journal of Research in Science Teaching, 2008, 45, 101-131.	2.0	336
16	Placing the history and philosophy of science on the curriculum: A model for the development of pedagogy. Science Education, 1997, 81, 405-424.	1.8	268
17	Scientific argument and explanation: A necessary distinction?. Science Education, 2011, 95, 627-638.	1.8	218
18	Beyond constructivism. Science Education, 1996, 80, 53-82.	1.8	186

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19	The Role of Narrative in Communicating Science. International Journal of Science Education, 2009, 31, 1683-1707.	1.0	183
20	â€˜Not girly, not sexy, not glamorousâ€™: primary school girlsâ€™ and parentsâ€™ constructions of science aspirations¹. Pedagogy, Culture and Society, 2013, 21, 171-194.	1.8	182
21	Learning to argue: A study of four schools and their attempt to develop the use of argumentation as a common instructional practice and its impact on students. Journal of Research in Science Teaching, 2013, 50, 315-347.	2.0	169
22	Young Children's Aspirations in Science: The unequivocal, the uncertain and the unthinkable. International Journal of Science Education, 2013, 35, 1037-1063.	1.0	160
23	Exploring young students' collaborative argumentation within a socioscientific issue. Journal of Research in Science Teaching, 2013, 50, 209-237.	2.0	158
24	The development and validation of a learning progression for argumentation in science. Journal of Research in Science Teaching, 2016, 53, 821-846.	2.0	158
25	Supporting Argumentation Through Students' Questions: Case Studies in Science Classrooms. Journal of the Learning Sciences, 2010, 19, 230-284.	2.0	156
26	Teaching students ?ideas-about-science?: Five dimensions of effective practice. Science Education, 2004, 88, 655-682.	1.8	153
27	â€œBalancing acts'': Elementary school girls' negotiations of femininity, achievement, and science. Science Education, 2012, 96, 967-989.	1.8	150
28	Students' questions and discursive interaction: Their impact on argumentation during collaborative group discussions in science. Journal of Research in Science Teaching, 2010, 47, 883-908.	2.0	147
29	Science Without Literacy: A ship without a sail?. Cambridge Journal of Education, 2002, 32, 203-218.	1.6	140
30	Supporting Teachers on Scienceâ€focused School Trips: Towards an integrated framework of theory and practice. International Journal of Science Education, 2007, 29, 685-710.	1.0	134
31	Styles of Scientific Reasoning: A Cultural Rationale for Science Education?. Science Education, 2017, 101, 8-31.	1.8	131
32	Is Science for Us? Black Studentsâ€™ and Parentsâ€™ Views of Science and Science Careers. Science Education, 2015, 99, 199-237.	1.8	117
33	HIGH ASPIRATIONS BUT LOW PROGRESSION: THE SCIENCE ASPIRATIONSâ€"CAREERS PARADOX AMONGST MINORITY ETHNIC STUDENTS. International Journal of Science and Mathematics Education, 2011, 9, 243-271.	1.5	100
34	The 21st century challenge for science education: Assessing scientific reasoning. Thinking Skills and Creativity, 2013, 10, 265-279.	1.9	99
35	The science classroom as a site of epistemic talk: A case study of a teacher's attempts to teach science based on argument. Journal of Research in Science Teaching, 2014, 51, 1275-1300.	2.0	97
36	Science-related Aspirations Across the Primaryâ€"Secondary Divide: Evidence from two surveys in England. International Journal of Science Education, 2014, 36, 1609-1629.	1.0	92

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37	â€˜Should We Kill the Grey Squirrels?â€™ A Study Exploring Studentsâ€™ Justifications and Decision-Making. International Journal of Science Education, 2012, 34, 401-428.	1.0	91
38	Interaction and interactives: collaboration and participation with computer-based exhibits. Public Understanding of Science, 2005, 14, 91-101.	1.6	85
39	Nerdy, Brainy and Normal: Childrenâ€™s and Parentsâ€™ Constructions of Those Who Are Highly Engaged with Science. Research in Science Education, 2013, 43, 1455-1476.	1.4	85
40	Beyond Construction: Five arguments for the role and value of critique in learning science. International Journal of Science Education, 2015, 37, 1668-1697.	1.0	77
41	Primary Science: Past and Future Directions. Studies in Science Education, 1996, 27, 99-147.	3.4	75
42	Impacts of a Practice-Based Professional Development Program on Elementary Teachersâ€™ Facilitation of and Student Engagement With Scientific Argumentation. American Educational Research Journal, 2019, 56, 1067-1112.	1.6	67
43	Bridging science education and science communication research. Journal of Research in Science Teaching, 2015, 52, 135-144.	2.0	65
44	Bourdieu's notion of cultural capital and its implications for the science curriculum. Science Education, 2013, 97, 58-79.	1.8	59
45	School visits to zoos and museums: a missed educational opportunity?. International Journal of Science Education, 1997, 19, 1039-1056.	1.0	55
46	Young children's (7â€'11) ideas about light and their development. International Journal of Science Education, 1993, 15, 83-93.	1.0	53
47	Toward a more coherent model for science education than the crosscutting concepts of the next generation science standards: The affordances of styles of reasoning. Journal of Research in Science Teaching, 2018, 55, 962-981.	2.0	46
48	Learning processes and collaborative concept mapping. International Journal of Science Education, 1997, 19, 1117-1135.	1.0	44
49	Evidenceâ€based practice in science education: the researcherâ€"user interface. Research Papers in Education, 2005, 20, 169-186.	1.7	35
50	Analyzing Science Education in the United Kingdom: Taking a System-Wide Approach. Science Education, 2015, 99, 145-173.	1.8	34
51	Beyond 2000: science/biology education for the future. Journal of Biological Education, 1999, 33, 68-70.	0.8	32
52	A Practice-Based Professional Development Program to Support Scientific Argumentation From Evidence in the Elementary Classroom. Journal of Science Teacher Education, 2017, 28, 222-249.	1.4	31
53	Promoting argument in the science classroom: A rhetorical perspective. Canadian Journal of Science, Mathematics and Technology Education, 2001, 1, 271-290.	0.6	30
54	Not â€œhands onâ€•but â€œminds onâ€• A response to Furtak and Penuel. Science Education, 2019, 103, 1280-1283.	1.8	29

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55	Recollections of Exhibits: Stimulatedâ€recall interviews with primary school children about science centre visits. International Journal of Science Education, 2010, 32, 1365-1388.	1.0	26
56	Poor performance in science among African students: An alternative explanation to the African worldview thesis. Journal of Research in Science Teaching, 1999, 36, 387-405.	2.0	22
57	Reading for meaning: The foundational knowledge every teacher of science should have. International Journal of Science Education, 2018, 40, 291-307.	1.0	22
58	Authors' response to â€œFor whom is argument and explanation a necessary distinction? A response to Osborne and Pattersonâ€• by Berland and McNeill. Science Education, 2012, 96, 814-817.	1.8	19
59	Learning from professional development: a case study of the challenges of enacting productive science discourse in the classroom. Professional Development in Education, 2018, 44, 721-737.	1.7	19
60	Science-Related Outcomes: Attitudes, Motivation, Value Beliefs, Strategies. Methodology of Educational Measurement and Assessment, 2016, , 301-329.	0.4	13
61	Research and Practice: A Complex Relationship?. , 2009, , 41-61.		13
62	Sacred cows in physics - towards a redefinition of physics education. Physics Education, 1990, 25, 189-196.	0.3	12
63	Revising the Economic Imperative for US STEM Education. PLoS Biology, 2014, 12, e1001760.	2.6	12
64	Going Beyond the Consensus View: A Response. Canadian Journal of Science, Mathematics and Technology Education, 2017, 17, 53-57.	0.6	12
65	The biological effects of ultraviolet radiation: a model for contemporary science education?. Journal of Biological Education, 1998, 33, 10-15.	0.8	10
66	Factual accuracy and the cultural context of science in popular media: Perspectives of media makers, middle school students, and university students on an entertainment television program. Public Understanding of Science, 2017, 26, 596-611.	1.6	10
67	The Potential of Adapted Primary Literature (APL) for Learning: A Response. Research in Science Education, 2009, 39, 397-403.	1.4	9
68	Untying the Gordian Knot: diminishing the role of practical work. Physics Education, 1996, 31, 271-278.	0.3	7
69	Teacher Facilitation of Elementary Science Discourse after a Professional Development Initiative. Elementary School Journal, 2021, 121, 561-585.	0.9	4
70	Static not rising. Physics World, 1998, 11, 18-18.	0.0	3
71	Learning to Read Science. Science Scope (Washington, D C), 2016, 040, .	0.1	3
72	Investigating the Function of Content and Argumentation Items in a Science Test: A Multidimensional Approach. Journal of Applied Measurement, 2015, 16, 171-92.	0.3	3

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73	Research and practice in science education: a response to Traianou and Hammersley. Oxford Review of Education, 2008, 34, 483-488.	1.4	2
74	A response to Saleh et al.: The wrong call to action. Journal of Research in Science Teaching, 2019, 56, 529-531.	2.0	2
75	How Might the Next Generation Science Standards Support Styles of Scientific Reasoning in Biology?. American Biology Teacher, 2020, 82, 579-583.	0.1	2
76	Impact of Dialogic Argumentation Pedagogy on Grade 8 Studentsâ€™ Epistemic Knowledge of Science. , 0, , .		2
77	Meeting the Challenge of Change. Studies in Science Education, 2000, 35, 190-197.	3.4	1
78	Policy and Pedagogy: International Reform and Design Challenges for Science and STEM Education. Contributions From Science Education Research, 2021, , 59-72.	0.4	1
79	Micros in university physics. Physics Education, 1984, 19, 164-164.	0.3	0
80	New technology and Newtonian physics. Physics Education, 1987, 22, 360-364.	0.3	0
81	PISA 2015: What Can Science Education Learn from the Data?. Contributions From Science Education Research, 2021, , 73-90.	0.4	0