M Gail Jones

List of Publications by Year
in descending order

112 papers	3,524 citations	159585 30 h-index	155660 55 g-index
116 all docs	116 docs citations	116 times ranked	2185 citing authors

#	Article	IF	Citations
1	Gender differences in students' experiences, interests, and attitudes toward science and scientists. Science Education, 2000, 84, 180-192.	3.0	465
2	The concept map as a research and evaluation tool: Further evidence of validity. Journal of Research in Science Teaching, 1994, 31, 91-101.	3.3	247
3	Haptics in Education: Exploring an Untapped Sensory Modality. Review of Educational Research, 2006, 76, 317-348.	7.5	190
4	Gender differences in teacher-student interactions in science classrooms. Journal of Research in Science Teaching, 1990, 27, 861-874.	3.3	175
5	Haptic augmentation of science instruction: Does touch matter?. Science Education, 2006, 90, 111-123.	3.0	107
6	Conceptual boundaries and distances: Students' and experts' concepts of the scale of scientific phenomena. Journal of Research in Science Teaching, 2006, 43, 282-319.	3.3	100
7	Gender differences in motivation and strategy use in science: Are girls rote learners?. Journal of Research in Science Teaching, 1996, 33, 393-406.	3.3	98
8	Learning at the nanoscale: The impact of students' use of remote microscopy on concepts of viruses, scale, and microscopy. Journal of Research in Science Teaching, 2003, 40, 303-322.	3.3	97
9	Nanotechnology and Nanoscale Science: Educational challenges. International Journal of Science Education, 2013, 35, 1490-1512.	1.9	90
10	Accuracy of scale conceptions in science: Mental maneuverings across many orders of spatial magnitude. Journal of Research in Science Teaching, 2006, 43, 1061-1085.	3.3	78
11	Putting Practice Into Theory: Changes in the Organization of Preservice Teachersâ€™ Pedagogical Knowledge. American Educational Research Journal, 1996, 33, 91-117.	2.7	72
12	Visualizing Without Vision at the Microscale: Students With Visual Impairments Explore Cells With Touch. Journal of Science Education and Technology, 2006, 15, 345-351.	3.9	63
13	The impact of haptic augmentation on middle school studentsâ€™ conceptions of the animal cell. Virtual Reality, 2006, 10, 293-305.	6.1	62
14	Creativity, inquiry, or accountability? Scientists' and teachers' perceptions of science education. Science Education, 2008, 92, 1058-1075.	3.0	55
15	Factors contributing to lifelong science learning: Amateur astronomers and birders. Journal of Research in Science Teaching, 2017, 54, 412-433.	3.3	55
16	Developing a sense of scale: Looking backward. Journal of Research in Science Teaching, 2009, 46, 460-475.	3.3	53
17	Experienced and Novice Teachersâ€™ Concepts of Spatial Scale. International Journal of Science Education, 2008, 30, 409-429.	1.9	53
18	Understanding Scale: Powers of Ten. Journal of Science Education and Technology, 2007, 16, 191-202.	3.9	48

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19	Haptic feedback and studentsâ€™ learning about levers: Unraveling the effect of simulated touch. Computers and Education, 2009, 53, 667-676.	8.3	48
20	Tool time: Gender and students' use of tools, control, and authority. Journal of Research in Science Teaching, 2000, 37, 760-783.	3.3	47
21	Exploring the Development of Conceptual Ecologies: Communities of Concepts Related to Convection and Heat. Journal of Research in Science Teaching, 2000, 37, 139-159.	3.3	43
22	Studentsâ€™ Risk Perceptions of Nanotechnology Applications: Implications for science education. International Journal of Science Education, 2010, 32, 1951-1969.	1.9	40
23	Developing a Scientist: A retrospective look. International Journal of Science Education, 2011, 33, 1653-1673.	1.9	39
24	Silent Sixth-Grade Students: Characteristics, Achievement, and Teacher Expectations. Elementary School Journal, 1994, 95, 169-182.	1.4	37
25	Teaching Systems Thinking in the Context of the Water Cycle. Research in Science Education, 2019, 49, 137-172.	2.3	37
26	Preservice teachers' cognitive frameworks for class management. Teaching and Teacher Education, 1995, 11, 313-330.	3.2	36
27	Measuring the Impact of Haptic Feedback Using the SOLO Taxonomy. International Journal of Science Education, 2009, 31, 1359-1378.	1.9	36
28	Gender influences in classroom displays and student-teacher behaviors. Science Education, 1989, 73, 535-545.	3.0	35
29	Science teachers' conceptual growth within Vygotsky's zone of proximal development. Journal of Research in Science Teaching, 1998, 35, 967-985.	3.3	35
30	Science Professional Learning Communities: Beyond a singular view of teacher professional development. International Journal of Science Education, 2013, 35, 1756-1774.	1.9	35
31	Remote atomic force microscopy of microscopic organisms: Technological innovations for hands-on science with middle and high school students. Science Education, 2004, 88, 55-71.	3.0	33
32	Conceptual Representations of Flu and Microbial Illness Held by Students, Teachers, and Medical Professionals. School Science and Mathematics, 2008, 108, 263-278.	0.9	32
33	An Investigation of African American Students' Mathematical Problem Solving. Journal for Research in Mathematics Education, 1998, 29, 143.	1.8	31
34	Pulling Back the Curtain: Uncovering and Changing Students' Perceptions of Scientists. School Science and Mathematics, 2006, 106, 181-190.	0.9	31
35	Proportional Reasoning Ability and Concepts of Scale: Surface area to volume relationships in science. International Journal of Science Education, 2009, 31, 1231-1247.	1.9	31
36	Estimating Linear Size and Scale: Body rulers. International Journal of Science Education, 2009, 31, 1495-1509.	1.9	30

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37	Children's concepts: Tools for transforming science teachers' knowledge. Science Education, 1999, 83, 545-557.	3.0	29
38	Conceptualizing Magnification and Scale: The Roles of Spatial Visualization and Logical Thinking. Research in Science Education, 2011, 41, 357-368.	2.3	28
39	Factors influencing the entry of women into science and related fields. Science Education, 1988, 72, 127-142.	3.0	27
40	Relationship between ability-paired interactions and the development of fifth graders' concepts of balance. Journal of Research in Science Teaching, 1994, 31, 847-856.	3.3	23
41	Investigating Potential Relationships Between Adolescentsâ€™ Cognitive Development and Perceptions of Presence in 3-D, Haptic-Enabled, Virtual Reality Science Instruction. Journal of Science Education and Technology, 2019, 28, 265-284.	3.9	23
42	Action zone theory, target students and science classroom interactions. Journal of Research in Science Teaching, 1990, 27, 651-660.	3.3	21
43	Students as Virtual Scientists: An exploration of students' and teachers' perceived realness of a remote electron microscopy investigation. International Journal of Science Education, 2015, 37, 2433-2452.	1.9	21
44	Learning from a distance: high school studentsâ€™ perceptions of virtual presence, motivation, and science identity during a remote microscopy investigation. International Journal of Science Education, 2017, 39, 257-273.	1.9	21
45	Citizen scientists and non-citizen scientist hobbyists: motivation, benefits, and influences. International Journal of Science Education, Part B: Communication and Public Engagement, 2018, 8, 287-306.	1.5	21
46	An Investigation of African American Students' Mathematical Problem Solving. Journal for Research in Mathematics Education, 1998, 29, 143-163.	1.8	21
47	Verbal and nonverbal behavior of ability-grouped dyads. Journal of Research in Science Teaching, 1994, 31, 603-619.	3.3	20
48	Understanding science career aspirations: Factors predicting future science task value. Journal of Research in Science Teaching, 2021, 58, 937-955.	3.3	20
49	Students' Accuracy of Measurement Estimation: Context, Units, and Logical Thinking. School Science and Mathematics, 2012, 112, 171-178.	0.9	19
50	Controlling Choice: Teachers, Students, and Manipulatives in Mathematics Classrooms. School Science and Mathematics, 2004, 104, 16-31.	0.9	18
51	Science Instructorsâ€™ Perceptions of the Risks of Biotechnology: Implications for Science Education. Research in Science Education, 2011, 41, 711-738.	2.3	18
52	Chinese and US Middle-School Science Teachers' Autonomy, Motivation, and Instructional Practices. International Journal of Science Education, 2013, 35, 1454-1489.	1.9	18
53	Science hobbyists: active users of the science-learning ecosystem. International Journal of Science Education, Part B: Communication and Public Engagement, 2017, 7, 161-180.	1.5	18
54	The Efficacy of Haptic Simulations to Teach Students with Visual Impairments about Temperature and Pressure. Journal of Visual Impairment and Blindness, 2014, 108, 55-61.	0.7	17

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55	Teaching Self-Efficacy of Science Teachers. , 2014, , 3-15.		17
56	Gardens or graveyards: Science education reform and school culture. Journal of Research in Science Teaching, 1998, 35, 757-775.	3.3	16
57	The Development and Validation of a Measure of Science Capital, Habitus, and Future Science Interests. Research in Science Education, 2021, 51, 1549-1565.	2.3	16
58	Characteristics of lifelong science learners: an investigation of STEM hobbyists. International Journal of Science Education, Part B: Communication and Public Engagement, 2018, 8, 53-75.	1.5	15
59	Relationships Between Inquiryâ€Based Teaching and Physical Science Standardized Test Scores. School Science and Mathematics, 2003, 103, 345-350.	0.9	14
60	Teachersâ€™ Concepts of Spatial Scale: An international comparison. International Journal of Science Education, 2013, 35, 2462-2482.	1.9	14
61	Is it Live or is it Memorex? Students' Synchronous and Asynchronous Communication with Scientists. International Journal of Science Education, 2008, 30, 495-514.	1.9	13
62	Concepts of scale held by students with visual impairment. Journal of Research in Science Teaching, 2009, 46, 506-519.	3.3	13
63	Precollege nanotechnology education: a different kind of thinking. Nanotechnology Reviews, 2015, 4, .	5.8	12
64	Hands-On: Science Education Reform. Journal of Teacher Education, 1996, 47, 375-385.	3.5	11
65	Cooperative Learning: Developmentally Appropriate for Middle Level Students. Middle School Journal, 1990, 22, 12-16.	0.7	10
66	Effects of partner's ability on the achievement and conceptual organization of high-achieving fifth-grade students. Science Education, 2003, 87, 94-111.	3.0	10
67	Perceptions and Practices: Biology graduate teaching assistantsâ€™ framing of a controversial socioscientific issue. International Journal of Science Education, 2011, 33, 1031-1054.	1.9	10
68	Differential Use of Elementary Science Kits. International Journal of Science Education, 2012, 34, 2371-2391.	1.9	10
69	Next generation crosscutting themes: Factors that contribute to students' understandings of size and scale. Journal of Research in Science Teaching, 2018, 55, 876-900.	3.3	10
70	Elementary Teachersâ€™ Selection and Use of Visual Models. Journal of Science Education and Technology, 2018, 27, 1-29.	3.9	10
71	Free choice science learning and STEM career choice. International Journal of Science Education, Part B: Communication and Public Engagement, 2019, 9, 29-39.	1.5	10
72	Itâ€™s about time: perceived barriers to in-service teacher climate change professional development. Environmental Education Research, 2021, 27, 762-778.	2.9	10

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73	Differences in African-American and European-American students' engagement with nanotechnology experiences: Perceptual position or assessment artifact?. Journal of Research in Science Teaching, 2007, 44, 787-799.	3.3	9
74	Studentsâ€™ and Teachersâ€™ Application of Surface Area to Volume Relationships. Research in Science Education, 2013, 43, 395-411.	2.3	9
75	The Impact of Microbiology Instruction on Studentsâ€™ Perceptions of Risks Related to Microbial Illness. International Journal of Science Education, Part B: Communication and Public Engagement, 2013, 3, 199-213.	1.5	9
76	Crosscutting concepts and achievement: Is a sense of size and scale related to achievement in science and mathematics?. Journal of Research in Science Teaching, 2019, 56, 302-321.	3.3	8
77	Factors Influencing Postsecondary STEM Studentsâ€™ Views of the Public Communication of an Emergent Technology: a Cross-National Study from Five Universities. Research in Science Education, 2017, 47, 1011-1029.	2.3	7
78	Accuracy of Estimations of Measurements by Students with Visual Impairments. Journal of Visual Impairment and Blindness, 2012, 106, 351-355.	0.7	6
79	Editorial: Gendered Paths into STEM. Disparities Between Females and Males in STEM Over the Life-Span. Frontiers in Psychology, 2019, 10, 2758.	2.1	6
80	Biological Literacy. American Biology Teacher, 1989, 51, 480-481.	0.2	5
81	Bacteria Buster: Testing Antibiotic Properties of Silver Nanoparticles. American Biology Teacher, 2009, 71, 231-234.	0.2	5
82	Female and minority experiences in an astronomy-based science hobby. Cultural Studies of Science Education, 2019, 14, 937-962.	1.3	5
83	Evaluation of Educator Self-Efficacy in Informal Science Centers. Journal of Museum Education, 2020, 45, 327-339.	0.6	5
84	Visualization Without Vision: Students with Visual. , 2008, , 283-294.		5
85	Enclothed cognition: putting lab coats to the test. International Journal of Science Education, 2019, 41, 1962-1976.	1.9	4
86	Impact of Introductory Nanoscience Course on College Freshmen's Conceptions of Spatial Scale. Journal of Nano Education (Print), 2010, 2, 53-66.	0.3	4
87	Small Groups and Shared Constructions. , 2005, , 261-279.		4
88	The Privilege of Low Pay: Informal Educatorsâ€™ Perspectives on Workforce Equity and Diversity. Journal of Museum Education, 2021, 46, 430-440.	0.6	4
89	The utility of <scp>3D</scp>, <scp>hapticâ€enabled</scp>, virtual reality technologies for student knowledge gains in the complex biological system of the human heart. Journal of Computer Assisted Learning, 2022, 38, 651-667.	5.1	4
90	Accelerating high school studentsâ€™ science career trajectories through non-formal science volunteer programs. International Journal of Science Education, Part B: Communication and Public Engagement, 2023, 13, 28-39.	1.5	4

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91	More Than Clocks and Calendars: The Construction of Timekeepers by Eleven Kindergarten Children in Mexico and the United States. Journal of Research in Childhood Education, 2005, 19, 223-241.	1.0	3
92	Popular Media in the Biology Classroom: Viewing Popular Science Skeptically. American Biology Teacher, 2009, 71, 332-335.	0.2	3
93	The Next Generation of Science Educators: Museum Volunteers. Journal of Science Teacher Education, 0, , 1-18.	2.5	3
94	Review of Virtual Reality Hardware Employed in K-20 Science Education. , 2019, , 1389-1399.		3
95	Exploring Pre-Service Teachers' Perceptions of the Risks of Emergent Technologies: Implications for Teaching and Learning. Journal of Nano Education (Print), 2014, 6, 39-49.	0.3	3
96	Emerging Results From a Middle School Professional Development School: The McDougle-University of North Carolina Collaborative Inquiry Partnership Groups. Peabody Journal of Education, 1999, 74, 236-253.	1.3	3
97	Performance-Based Assessment in Middle School Science. Middle School Journal, 1994, 25, 35-38.	0.7	2
98	Scale and the evolutionarily based approximate number system: an exploratory study. International Journal of Science Education, 2017, 39, 1008-1024.	1.9	2
99	Review of Virtual Reality Hardware Employed in K-20 Science Education. , 2019, , 1-12.		2
100	Teaching a Multidisciplinary Nanotechnology Laboratory Course to Undergraduate Students. Journal of Nano Education (Print), 2013, 5, 17-26.	0.3	2
101	Touching the Stars: Making Astronomy Accessible for Students With Visual Impairments. Science Scope (Washington, D C), 2015, 038, .	0.1	2
102	The Case of the Disappearing â€œPeanutsâ€• Science Activities, 1994, 30, 8-10.	0.6	1
103	We Scream for Nano Ice Cream. Science Activities, 2011, 48, 107-110.	0.6	1
104	Where are the Women and Minority Fossil Collectors? A Study of the Development and Characteristics of Science Hobbyists. The Paleontological Society Special Publications, 2014, 13, 106-107.	0.0	1
105	Gender differences in motivation and strategy use in science: Are girls rote learners?. Journal of Research in Science Teaching, 1996, 33, 393-406.	3.3	1
106	Inquiry Into Action: Ecosystems and Animals. Science Scope (Washington, D C), 2017, 041, .	0.1	1
107	The Efficacy of Visuohaptic Simulations in Teaching Concepts of Thermal Energy, Pressure, and Random Motion. Contributions From Science Education Research, 2016, , 73-86.	0.5	1
108	Investigating the Impact of Visuohaptic Simulations for Conceptual Understanding in Electricity and Magnetism. , 0, , .		1

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109	Middle Schools are Communities of Many Voices. Middle School Journal, 1999, 31, 42-48.	0.7	0
110	Haptic Feedback in the Instructional Environment and its Relationship to Visual Attention and Learning. Proceedings of the Human Factors and Ergonomics Society, 2008, 52, 638-642.	0.3	0
111	Nanoscience for All: Strategies for Teaching Nanoscience to Undergraduate Freshmen Science and Non-Science Majors. Journal of Nano Education (Print), 2013, 5, 70-78.	0.3	0
112	Science Meets Engineering: Applying the Design Process to Monitor Leatherback Turtle Hatchlings. Science Scope (Washington, D C), 2015, 038, .	0.1	0