Mitchell J Nathan

List of Publications by Year
in descending order

56	5,175	147801	182427
papers	citations	31 h-index	51 g-index

59	59	59	3323
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Improving Studentsâ€™ Learning With Effective Learning Techniques. Psychological Science in the Public Interest: A Journal of the American Psychological Society, 2013, 14, 4-58.	10.7	1,980
2	Embodiment in Mathematics Teaching and Learning: Evidence From Learners' and Teachers' Gestures. Journal of the Learning Sciences, 2012, 21, 247-286.	2.9	418
3	The Real Story Behind Story Problems: Effects of Representations on Quantitative Reasoning. Journal of the Learning Sciences, 2004, 13, 129-164.	2.9	281
4	A Theory of Algebra-Word-Problem Comprehension and Its Implications for the Design of Learning Environments. Cognition and Instruction, 1992, 9, 329-389.	2.9	223
5	Expert Blind Spot Among Preservice Teachers. American Educational Research Journal, 2003, 40, 905-928.	2.7	208
6	A Study of Whole Classroom Mathematical Discourse and Teacher Change. Cognition and Instruction, 2003, 21, 175-207.	2.9	144
7	Tradeâ€Offs Between Grounded and Abstract Representations: Evidence From Algebra Problem Solving. Cognitive Science, 2008, 32, 366-397.	1.7	127
8	An Investigation of Teachers' Beliefs of Students' Algebra Development. Cognition and Instruction, 2000, 18, 209-237.	2.9	115
9	Low agreement among reviewers evaluating the same NIH grant applications. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2952-2957.	7.1	111
10	Teachers' and Researchers' Beliefs about the Development of Algebraic Reasoning. Journal for Research in Mathematics Education, 2000, 31, 168.	1.8	97
11	How Teachers Link Ideas in Mathematics Instruction Using Speech and Gesture: A Corpus Analysis. Cognition and Instruction, 2014, 32, 65-100.	2.9	97
12	Foundations of the Learning Sciences. , 2014, , 21-43.		76
13	Rethinking Formalisms in Formal Education. Educational Psychologist, 2012, 47, 125-148.	9.0	70
14	Students learn more when their teacher has learned to gesture effectively. Gesture, 2013, 13, 210-233.	0.2	66
15	Preservice elementary teachers' views of their students' prior knowledge of science. Journal of Research in Science Teaching, 2008, 45, 497-523.	3.3	64
16	The Future of Embodied Design for Mathematics Teaching and Learning. Frontiers in Education, 2020, 5, .	2.1	63
17	Preâ€College Engineering Studies: An Investigation of the Relationship Between Preâ€college Engineering Studies and Student Achievement in Science and Mathematics. Journal of Engineering Education, 2010, 99, 143-157.	3.0	53
18	Building Cohesion Across Representations: A Mechanism for <scp>STEM</scp> Integration. Journal of Engineering Education, 2013, 102, 77-116.	3.0	53

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19	Actions speak louder with words: The roles of action and pedagogical language for grounding mathematical proof. Learning and Instruction, 2014, 33, 182-193.	3.2	53
20	Knowledge and Situational Feedback in a Learning Environment for Algebra Story Problem Solving. Interactive Learning Environments, 1998, 5, 135-159.	6.4	52
21	Teachersâ€™ gestures and speech in mathematics lessons: forging common ground by resolving trouble spots. ZDM - International Journal on Mathematics Education, 2013, 45, 425-440.	2.2	50
22	Regulation of Teacher Elicitations in the Mathematics Classroom. Cognition and Instruction, 2009, 27, 91-120.	2.9	48
23	Grounded and embodied mathematical cognition: Promoting mathematical insight and proof using action and language. Cognitive Research: Principles and Implications, 2017, 2, 9.	2.0	48
24	The Symbol Precedence View of Mathematical Development: A Corpus Analysis of the Rhetorical Structure of Textbooks. Discourse Processes, 2002, 33, 1-21.	1.8	46
25	To Disagree, We Must Also Agree: How Intersubjectivity Structures and Perpetuates Discourse in a Mathematics Classroom. Journal of the Learning Sciences, 2007, 16, 523-563.	2.9	46
26	Beliefs and Expectations about Engineering Preparation Exhibited by High School STEM Teachers. Journal of Engineering Education, 2010, 99, 409-426.	3.0	44
27	Conducting Research in Schools: A Practical Guide. Journal of Cognition and Development, 2010, 11, 397-407.	1.3	44
28	Learning sciences. Wiley Interdisciplinary Reviews: Cognitive Science, 2010, 1, 329-345.	2.8	40
29	â€˜Your comments are meaner than your scoreâ€™: score calibration talk influences intra- and inter-panel variability during scientific grant peer review. Research Evaluation, 2017, 26, 1-14.	2.6	40
30	Making â€œconcreteness fadingâ€•more concrete as a theory of instruction for promoting transfer. Educational Review, 2019, 71, 403-422.	3.7	40
31	Constructing Graphical Representations: Middle Schoolers' Intuitions and Developing Knowledge About Slope and Yâ€intercept. School Science and Mathematics, 2012, 112, 230-240.	0.9	38
32	Representational disfluency in algebra: evidence from student gestures and speech. ZDM - International Journal on Mathematics Education, 2009, 41, 637-650.	2.2	36
33	An embodied cognition perspective on symbols, gesture, and grounding instruction. , 2008, , 375-396.		29
34	Pattern Generalization with Graphs and Words: A Cross-Sectional and Longitudinal Analysis of Middle School Students' Representational Fluency. Mathematical Thinking and Learning, 2007, 9, 193-219.	1.2	25
35	Collaborative gesture as a case of extended mathematical cognition. Journal of Mathematical Behavior, 2019, 55, 100683.	0.9	25
36	How readability and topic incidence relate to performance on mathematics story problems in computer-based curricula.. Journal of Educational Psychology, 2015, 107, 1051-1074.	2.9	24

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37	Managing common ground in the classroom: teachers use gestures to support studentsâ€™ contributions to classroom discourse. ZDM - International Journal on Mathematics Education, 2019, 51, 347-360.	2.2	24
38	Gesture as model enactment: the role of gesture in mental model construction and inference making when learning from text. Learning: Research and Practice, 2015, 1, 4-37.	0.4	16
39	Embodied geometric reasoning: Dynamic gestures during intuition, insight, and proof.. Journal of Educational Psychology, 2021, 113, 929-948.	2.9	16
40	Threading mathematics through symbols, sketches, software, silicon, and wood: Teachers produce and maintain cohesion to support STEM integration. Journal of Educational Research, 2017, 110, 272-293.	1.6	15
41	Learning About Posterior Probability: Do Diagrams and Elaborative Interrogation Help?. Journal of Experimental Education, 2016, 84, 579-599.	2.6	14
42	What We Say and How We Do: Action, Gesture, and Language in Proving. Journal for Research in Mathematics Education, 2017, 48, 248-260.	1.8	14
43	Embodied truths: How dynamic gestures and speech contribute to mathematical proof practices. Contemporary Educational Psychology, 2019, 58, 44-57.	2.9	14
44	A Framework for Understanding and Cultivating the Transition from Arithmetic to Algebraic Reasoning. Mathematical Thinking and Learning, 2007, 9, 179-192.	1.2	11
45	Does restricting hand gestures impair mathematical reasoning?. Learning and Instruction, 2019, 64, 101225.	3.2	11
46	BRIDGES AND BARRIERS TO CONSTRUCTING CONCEPTUAL COHESION ACROSS MODALITIES AND TEMPORALITIES:. , 2014, , 183-210.		11
47	Connecting Research to Teaching: Moving beyond Teachers' Intuitive Beliefs about Algebra Learning. The Mathematics Teacher, 2000, 93, 218-223.	0.1	10
48	Learning about Probability from Text and Tables: Do Color Coding and Labeling through an Interactiveâ€user Interface Help?. Applied Cognitive Psychology, 2016, 30, 440-453.	1.6	9
49	Learning from an avatar video instructor. Gesture, 2020, 19, 128-155.	0.2	8
50	ChapterÂ8. One function of gesture is to make new ideas. Gesture Studies, 2017, , 175-196.	0.6	7
51	Materialist epistemology lends design wings: educational design as an embodied process. Educational Technology Research and Development, 2021, 69, 1925-1954.	2.8	6
52	Teachersâ€™ attitudes about gesture for learning and instruction. Gesture, 2019, 18, 31-56.	0.2	5
53	An Embodied Theory of Transfer of Mathematical Learning. Research in Mathematics Education, 2021, , 27-58.	0.3	4
54	Foundations of the Learning Sciences. , 2022, , 27-52.		2

#	Article	IF	Citations
55	Multimedia Journal Articles: Promises, Pitfalls and Recommendations. Educational Media International, 1994, 31, 265-273.	1.7	0
56	A Review of Mathematics and the Body: Material Entanglements in the Classroom. Journal for Research in Mathematics Education, 2016, 47, 423-427.	1.8	0