Roza Leikin

List of Publications by Year
in descending order

81 papers	1,901 citations	304743 22 h-index	330143 37 g-index
83 all docs	83 docs citations	83 times ranked	746 citing authors

#	Article	IF	Citations
1	Professional Development of Mathematics Teacher Educators: Growth Through Practice. Journal of Mathematics Teacher Education, 2004, 7, 5-32.	1.8	127
2	Creativity and mathematics education: the state of the art. ZDM - International Journal on Mathematics Education, 2013, 45, 159-166.	2.2	95
3	Advanced Mathematical Knowledge in Teaching Practice: Perceptions of Secondary Mathematics Teachers. Mathematical Thinking and Learning, 2010, 12, 263-281.	1.2	91
4	Exploring mathematics teacher knowledge to explain the gap between theory-based recommendations and school practice in the use of connecting tasks. Educational Studies in Mathematics, 2007, 66, 349-371.	2.8	90
5	Exemplifying definitions: a case of a square. Educational Studies in Mathematics, 2008, 69, 131-148.	2.8	90
6	The role of multiple solution tasks in developing knowledge and creativity in geometry. Journal of Mathematical Behavior, 2012, 31, 73-90.	0.9	87
7	Mathematical creativity in generally gifted and mathematically excelling adolescents: what makes the difference?. ZDM - International Journal on Mathematics Education, 2013, 45, 183-197.	2.2	74
8	An exploratory framework for handling the complexity of mathematical problem posing in small groups. Journal of Mathematical Behavior, 2012, 31, 149-161.	0.9	57
9	Facilitating Student Interactions in Mathematics in a Cooperative Learning Setting. Journal for Research in Mathematics Education, 1997, 28, 331.	1.8	55
10	Affect in mathematical problem posing: conceptualization, advances, and future directions for research. Educational Studies in Mathematics, 2020, 105, 287-301.	2.8	52
11	Interesting and difficult mathematical problems: changing teachersâ€™ views by employing multiple-solution tasks. Journal of Mathematics Teacher Education, 2013, 16, 33-56.	1.8	51
12	Teachersâ€™ views on creativity in mathematics education: an international survey. ZDM - International Journal on Mathematics Education, 2013, 45, 309-324.	2.2	41
13	Challenging Mathematics with Multiple Solution Tasks and Mathematical Investigations in Geometry. Advances in Mathematics Education, 2014, , 59-80.	0.2	37
14	Solution Spaces of Multiple-Solution Connecting Tasks as a Mirror of the Development of Mathematics Teachersâ€™ Knowledge. Canadian Journal of Science, Mathematics and Technology Education, 2008, 8, 233-251.	1.0	35
15	Creative mathematics teaching in the eye of the beholder: focusing on teachers' conceptions. Research in Mathematics Education, 2011, 13, 17-32.	1.2	33
16	Problem posing through investigations for the development and evaluation of proof-related skills and creativity skills of prospective high school mathematics teachers. International Journal of Educational Research, 2020, 102, 101424.	2.2	32
17	Memory abilities in generally gifted and excelling-in-mathematics adolescents. Intelligence, 2013, 41, 566-578.	3.0	30
18	Teacher flexibility in mathematical discussion. Journal of Mathematical Behavior, 2007, 26, 328-347.	0.9	29

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19	Research mathematicians as teacher educators: focusing on mathematics for secondary mathematics teachers. Journal of Mathematics Teacher Education, 2018, 21, 451-473.	1.8	26
20	Connecting Research to Teaching: Cooperative Learning in Mathematics. The Mathematics Teacher, 1999, 92, 240-246.	0.1	26
21	Opening mathematical problems for posing open mathematical tasks: what do teachers do and feel?. Educational Studies in Mathematics, 2020, 105, 349-365.	2.8	25
22	The education of mathematically gifted students: Some complexities and questions. , 2011, 8, 167-188.		24
23	Saying versus doing: teachersâ€™ conceptions of creativity in elementary mathematics teaching. ZDM - International Journal on Mathematics Education, 2013, 45, 295-308.	2.2	23
24	BRAIN ACTIVITY ASSOCIATED WITH TRANSLATION BETWEEN GRAPHICAL AND SYMBOLIC REPRESENTATIONS OF FUNCTIONS IN GENERALLY GIFTED AND EXCELLING IN MATHEMATICS ADOLESCENTS. International Journal of Science and Mathematics Education, 2014, 12, 669-696.	2.5	23
25	Learning through teaching: A case study on the development of a mathematics teacherâ€™s proficiency in managing an inquiry-based classroom. Mathematics Education Research Journal, 2006, 18, 44-68.	1.7	22
26	ONE TEACHER, TWO LESSONS: THE LESSON STUDY PROCESS. International Journal of Science and Mathematics Education, 2012, 10, 139-161.	2.5	21
27	Does solving insight-based problems differ from solving learning-based problems? Some evidence from an ERP study. ZDM - International Journal on Mathematics Education, 2016, 48, 305-319.	2.2	21
28	Applications of symmetry to problem solving. International Journal of Mathematical Education in Science and Technology, 2000, 31, 799-809.	1.4	20
29	Problem-Solving Preferences of Mathematics Teachers: Focusing on Symmetry. Journal of Mathematics Teacher Education, 2003, 6, 297-329.	1.8	19
30	Speed of information processing in generally gifted and excelling-in-mathematics adolescents. High Ability Studies, 2014, 25, 143-167.	1.9	19
31	Advancements in research on creativity and giftedness in mathematics education: introduction to the special issue. ZDM - International Journal on Mathematics Education, 2017, 49, 5-12.	2.2	19
32	Multiple-solution tasks: from a teacher education course to teacher practice. ZDM - International Journal on Mathematics Education, 2011, 43, 993-1006.	2.2	18
33	Cognitive Characteristics of Students with Superior Performance in Mathematics. Journal of Individual Differences, 2014, 35, 119-129.	1.0	18
34	On the content-dependence of prospective teachersâ€™ knowledge: a case of exemplifying definitions. International Journal of Mathematical Education in Science and Technology, 2010, 41, 451-466.	1.4	17
35	Teachers modify geometry problems: from proof to investigation. Educational Studies in Mathematics, 2013, 82, 515-531.	2.8	17
36	Creativity as a function of problem-solving expertise: posing new problems through investigations. ZDM - International Journal on Mathematics Education, 2021, 53, 891-904.	2.2	17

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37	Professional Development of Mathematics Educators: Trends and Tasks. , 2003, , 877-917.		17
38	Teaching the Mathematically Gifted. Gifted Education International, 2010, 27, 161-175.	1.8	16
39	Using Multiple Solution Tasks for the Evaluation of Studentsâ€™ Problem-Solving Performance in Geometry. Canadian Journal of Science, Mathematics and Technology Education, 2012, 12, 311-333.	1.0	16
40	EFFECT OF THE PRESENCE OF EXTERNAL REPRESENTATIONS ON ACCURACY AND REACTION TIME IN SOLVING MATHEMATICAL DOUBLE-CHOICE PROBLEMS BY STUDENTS OF DIFFERENT LEVELS OF INSTRUCTION. International Journal of Science and Mathematics Education, 2013, 11, 1049-1066.	2.5	16
41	On the four types of characteristics of super mathematically gifted students. High Ability Studies, 2017, 28, 107-125.	1.9	16
42	Forms of Proof and Proving in the Classroom. New ICMI Study Series, 2012, , 191-213.	1.0	16
43	Openness and Constraints Associated with Creativity-Directed Activities in Mathematics for All Students. Research in Mathematics Education, 2018, , 387-397.	0.3	15
44	Problem Posing for and Through Investigations in a Dynamic Geometry Environment. , 2015, , 373-391.		14
45	Learning through teaching: The case of symmetry. Mathematics Education Research Journal, 2000, 12, 18-36.	1.7	13
46	Visual Processing in Generally Gifted and Mathematically Excelling Adolescents. Journal for the Education of the Gifted, 2016, 39, 237-258.	1.0	13
47	The wholes that are greater than the sum of their parts: employing cooperative learning in mathematics teachersâ€™ education. Journal of Mathematical Behavior, 2004, 23, 223-256.	0.9	12
48	Planning teaching an unfamiliar mathematics problem: The role of teachersâ€™ experience in solving the problem and watching pupils solving it. Journal of Mathematical Behavior, 2005, 24, 253-274.	0.9	12
49	How are questions that students ask in high level mathematics classes linked to general giftedness?. ZDM - International Journal on Mathematics Education, 2017, 49, 65-80.	2.2	12
50	An analytic conception of equation and teachersâ€™ views of school algebra. Journal of Mathematical Behavior, 2008, 27, 87-100.	0.9	11
51	Teaching the Mathematically Gifted: Featuring a Teacher. Canadian Journal of Science, Mathematics and Technology Education, 2011, 11, 78-89.	1.0	11
52	Mathematical Challenge in the Eyes of the Beholder: Mathematics Teachersâ€™ Views. Canadian Journal of Science, Mathematics and Technology Education, 2014, 14, 388-403.	1.0	11
53	The Interplay Between Excellence in School Mathematics and General Giftedness: Focusing on Mathematical Creativity. Advances in Mathematics Education, 2017, , 225-238.	0.2	11
54	Giftedness and High Ability in Mathematics. , 2020, , 315-325.		11

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55	Development of Teachersâ€™ Conceptions Through Learning and Teaching: The Meaning and Potential of Multiple-Solution Tasks. Canadian Journal of Science, Mathematics and Technology Education, 2009, 9, 203-223.	1.0	10
56	Giftedness and High Ability in Mathematics. , 2014, , 247-251.		10
57	When practice needs more research: the nature and nurture of mathematical giftedness. ZDM - International Journal on Mathematics Education, 2021, 53, 1-11.	2.2	9
58	Empirical research on creativity in mathematics (education): from the wastelands of psychology to the current state of the art. ZDM - International Journal on Mathematics Education, 2022, 54, 1-17.	2.2	9
59	Brain activity associated with logical inferences in geometry: focusing on students with different levels of ability. ZDM - International Journal on Mathematics Education, 2016, 48, 321-335.	2.2	8
60	Teachersâ€™ Opportunities to Learn Mathematics Through Teaching. , 2010, , 3-21.		8
61	Developing mathematical talent in schoolchildren: Who, what, and how?. , 2019, , 173-199.		8
62	Teacher Development and Mathematical Challenge. New ICMI Study Series, 2009, , 205-242.	1.0	7
63	Brain activity associated with translation from a visual to a symbolic representation in algebra and geometry. Journal of Integrative Neuroscience, 2014, 13, 35-59.	1.7	7
64	Recent Advances in Research on Problem Solving and Problem Posing. , 2016, , 353-382.		7
65	Facilitating Student Interactions in Mathematics in a Cooperative Learning Setting. Journal for Research in Mathematics Education, 1997, 28, 331-354.	1.8	7
66	Commentary on Interdisciplinary Perspectives to Creativity and Giftedness. Advances in Mathematics Education, 2017, , 259-264.	0.2	6
67	Strategy creativity and outcome creativity when solving open tasks: focusing on problem posing through investigations. ZDM - International Journal on Mathematics Education, 2022, 54, 35-49.	2.2	6
68	Giftedness and High Ability in Mathematics. , 2018, , 1-11.		5
69	Stepped Tasks: Top-Down Structure of Varying Mathematical Challenge. Research in Mathematics Education, 2019, , 167-184.	0.3	4
70	Qualities of professional dialogue: connecting graduate research on teaching and the undergraduate teachersâ€™ program. International Journal of Mathematical Education in Science and Technology, 2005, 36, 235-254.	1.4	3
71	What Is Special About the Brain Activity of Mathematically Gifted Adolescents?. Advances in Mathematics Education, 2017, , 165-181.	0.2	3
72	Characterisation of Mathematics Teacher Educatorsâ€™ Knowledge in Terms of Teachersâ€™ Professional Potential and Challenging Content for Mathematics Teachers. Research in Mathematics Education, 2021, , 109-121.	0.3	3

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73	Relationships between general giftedness, expertise in mathematics, and mathematical creativity that associated with pattern generalization tasks in different representations. , 2022, 1, 36-51.		3
74	Derivative of Area Equals Perimeterâ€"Coincidence or Rule?. The Mathematics Teacher, 2013, 106, 686-692.	0.1	2
75	Learning Through Teaching Through the Lens of Multiple Solution Tasks. , 2010, , 69-85.		1
76	Introduction to the Special Issue on Mathematical Gift and Promise: Exploring and Developing/Introduction au NumÃ©ro spÃ©cial sur talent et promesse en mathÃ©matiques: Tour d'horizon et nouveaux dÃ©veloppements. Canadian Journal of Science, Mathematics and Technology Education, 2011, 11, 1-7.	1.0	1
77	CERME7 Working Group 7: Mathematical potential, creativity and talent. Research in Mathematics Education, 2012, 14, 197-198.	1.2	1
78	How Can Cognitive Neuroscience Contribute to Mathematics Education? Bridging the Two Research Areas. ICME-13 Monographs, 2018, , 363-383.	1.0	0
79	Nurturing Students with High Mathematical Potential. Series on Mathematical Education, 2018, , 155-163.	0.0	0
80	National Centers of Mathematics Teachers: Bridging Between Theory and Practice in Mathematics Teaching. Series on Mathematical Education, 2018, , 277-284.	0.0	0
81	Club-5: Communities of Practice of High School Mathematics Teachers Who Teach Advanced-Level Mathematics. Series on Mathematical Education, 2018, , 267-276.	0.0	0