

Wouter R. van Joolingen

List of Publications by Year in descending order

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Version: 2024-02-01

89
papers

4,337
citations

159585

30
h-index

114465

63
g-index

94
all docs

94
docs citations

94
times ranked

2230
citing authors

#	ARTICLE	IF	CITATIONS
1	Scientific Discovery Learning with Computer Simulations of Conceptual Domains. Review of Educational Research, 1998, 68, 179-201.	7.5	1,016
2	The learning effects of computer simulations in science education. Computers and Education, 2012, 58, 136-153.	8.3	572
3	Co-Lab: research and development of an online learning environment for collaborative scientific discovery learning. Computers in Human Behavior, 2005, 21, 671-688.	8.5	246
4	Issues in computer supported inquiry learning in science. Journal of Computer Assisted Learning, 2007, 23, 111-119.	5.1	136
5	Motivation and performance within a collaborative computer-based modeling task: Relations between students' achievement goal orientation, self-efficacy, cognitive processing, and achievement. Contemporary Educational Psychology, 2008, 33, 58-77.	2.9	122
6	Escape education: A systematic review on escape rooms in education. Educational Research Review, 2020, 31, 100364.	7.8	117
7	Insights into teaching quantum mechanics in secondary and lower undergraduate education. Physical Review Physics Education Research, 2017, 13, .	2.9	110
8	Supporting simulation-based learning; the effects of model progression and assignments on definitional and intuitive knowledge. Learning and Instruction, 1998, 8, 235-252.	3.2	97
9	The Difficult Process of Scientific Modelling: An analysis of novices' reasoning during computer-based modelling. International Journal of Science Education, 2005, 27, 1695-1721.	1.9	94
10	The integration of computer simulation and learning support: An example from the physics domain of collisions. Journal of Research in Science Teaching, 1999, 36, 597-615.	3.3	82
11	Supporting hypothesis generation by learners exploring an interactive computer simulation. Instructional Science, 1991, 20, 389-404.	2.0	79
12	An extended dual search space model of scientific discovery learning. Instructional Science, 1997, 25, 307-346.	2.0	77
13	The Relation between Students' Epistemological Understanding of Computer Models and their Cognitive Processing on a Modelling Task. International Journal of Science Education, 2009, 31, 1205-1229.	1.9	74
14	Learning by creating and exchanging objects: The SCY experience. British Journal of Educational Technology, 2010, 41, 909-921.	6.3	68
15	Use of Heuristics to Facilitate Scientific Discovery Learning in a Simulation Learning Environment in a Physics Domain. International Journal of Science Education, 2006, 28, 341-361.	1.9	64
16	Students' reasoning during modeling in an inquiry learning environment. Computers in Human Behavior, 2005, 21, 441-461.	8.5	56
17	The effects of discovery learning and expository instruction on the acquisition of definitional and intuitive knowledge. Journal of Computer Assisted Learning, 2004, 20, 225-234.	5.1	53
18	Support of the collaborative inquiry learning process: influence of support on task and team regulation. Metacognition and Learning, 2012, 7, 7-23.	2.7	52

#	ARTICLE	IF	CITATIONS
19	Supporting Communication in a Collaborative Discovery Learning Environment: the Effect of Instruction. <i>Instructional Science</i> , 2007, 35, 73-98.	2.0	51
20	Interaction between tool and talk: how instruction and tools support consensus building in collaborative inquiry learning environments. <i>Journal of Computer Assisted Learning</i> , 2009, 25, 252-267.	5.1	48
21	Self-directed learning in simulation-based discovery environments. <i>Journal of Computer Assisted Learning</i> , 1998, 14, 235-246.	5.1	47
22	The effect of external representation on constructing computer models of complex phenomena. <i>Instructional Science</i> , 2003, 31, 395-418.	2.0	47
23	Communication in collaborative discovery learning. <i>British Journal of Educational Psychology</i> , 2005, 75, 603-621.	2.9	47
24	Escape boxes: Bringing escape room experience into the classroom. <i>British Journal of Educational Technology</i> , 2020, 51, 1220-1239.	6.3	47
25	Promoting Self-Directed Learning in Simulation-Based Discovery Learning Environments Through Intelligent Support. <i>Interactive Learning Environments</i> , 2000, 8, 229-255.	6.4	46
26	Inquiry-Based Whole-Class Teaching with Computer Simulations in Physics. <i>International Journal of Science Education</i> , 2015, 37, 1225-1245.	1.9	45
27	Using scenarios to design complex technology-enhanced learning environments. <i>Educational Technology Research and Development</i> , 2012, 60, 883-901.	2.8	43
28	Understanding teacher design teams – A mixed methods approach to developing a descriptive framework. <i>Teaching and Teacher Education</i> , 2015, 51, 213-224.	3.2	43
29	Collaborative drawing on a shared digital canvas in elementary science education: The effects of script and task awareness support. <i>International Journal of Computer-Supported Collaborative Learning</i> , 2013, 8, 427-453.	3.0	38
30	Using Co-Lab to build System Dynamics models: Students' actions and on-line tutorial advice. <i>Computers and Education</i> , 2009, 53, 243-251.	8.3	37
31	Key topics for quantum mechanics at secondary schools: a Delphi study into expert opinions. <i>International Journal of Science Education</i> , 2019, 41, 349-366.	1.9	32
32	Bringing systems thinking into the classroom. <i>International Journal of Science Education</i> , 2020, 42, 1253-1280.	1.9	32
33	Scientific Discovery Learning with Computer Simulations of Conceptual Domains. <i>Review of Educational Research</i> , 1998, 68, 179.	7.5	30
34	Designing for Collaborative Discovery Learning. <i>Lecture Notes in Computer Science</i> , 2000, , 202-211.	1.3	29
35	What Can Be Learned from Computer Modeling? Comparing Expository and Modeling Approaches to Teaching Dynamic Systems Behavior. <i>Journal of Science Education and Technology</i> , 2012, 21, 267-275.	3.9	29
36	Effects of face-to-face versus chat communication on performance in a collaborative inquiry modeling task. <i>Computers and Education</i> , 2011, 56, 379-387.	8.3	27

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37	Modeling and Simulation in Inquiry Learning: Checking Solutions and Giving Intelligent Advice. <i>Simulation</i> , 2006, 82, 769-784.	1.8	24
38	Understanding Elementary Astronomy by Making Drawing-Based Models. <i>Journal of Science Education and Technology</i> , 2015, 24, 256-264.	3.9	22
39	Using self-made drawings to support modelling in science education. <i>British Journal of Educational Technology</i> , 2013, 44, 82-94.	6.3	21
40	SimSketch: Multiagent Simulations Based on Learner-Created Sketches for Early Science Education. <i>IEEE Transactions on Learning Technologies</i> , 2013, 6, 208-216.	3.2	21
41	Teachers' and educators' perspectives on systems thinking and its implementation in Dutch biology education. <i>Journal of Biological Education</i> , 2020, 54, 485-496.	1.5	21
42	Characteristics of simulations for instructional settings. <i>Education and Computing</i> , 1991, 6, 241-262.	0.2	20
43	Developments in Inquiry Learning. , 2009, , 21-37.		19
44	Simquest. , 2003, , 1-31.		19
45	Assessing students' understanding of models of biological processes: a revised framework. <i>International Journal of Science Education</i> , 2019, 41, 981-994.	1.9	17
46	Student-Generated Stop-Motion Animation in Science Classes: a Systematic Literature Review. <i>Journal of Science Education and Technology</i> , 2020, 29, 797-812.	3.9	17
47	Teaching and learning special relativity theory in secondary and lower undergraduate education: A literature review. <i>Physical Review Physics Education Research</i> , 2021, 17, .	2.9	17
48	Investigating Ecosystems as a Blended Learning Experience. <i>Science</i> , 2013, 340, 1537-1538.	12.6	15
49	A qualitative analysis of teacher design teams: In-depth insights into their process and links with their outcomes. <i>Studies in Educational Evaluation</i> , 2017, 55, 135-144.	2.3	14
50	Revealing the balancing act of vertical and shared leadership in Teacher Design Teams. <i>Teaching and Teacher Education</i> , 2018, 72, 1-12.	3.2	14
51	Stimulating Scientific Reasoning with Drawing-Based Modeling. <i>Journal of Science Education and Technology</i> , 2018, 27, 45-56.	3.9	14
52	Online lesson study: virtual teaming in a new normal. <i>International Journal for Lesson and Learning Studies</i> , 2021, 10, 217-229.	0.9	13
53	Pre-university students' perceptions about the life cycle of bioplastics and fossil-based plastics. <i>Chemistry Education Research and Practice</i> , 2020, 21, 908-921.	2.5	12
54	Support for simulation-based learning: The effect of assignments in learning about transmission lines. <i>Lecture Notes in Computer Science</i> , 1996, , 9-26.	1.3	10

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55	The relation of learners's motivation with the process of collaborative scientific discovery learning. Educational Studies, 2009, 35, 205-222.	2.4	10
56	Fostering Students's Understanding of Complex Biological Systems. CBE Life Sciences Education, 2021, 20, ar37.	2.3	10
57	An Educational Reconstruction of Special Relativity Theory for Secondary Education. Science and Education, 2023, 32, 57-100.	2.7	9
58	Students's self-reported well-being under corona measures, lessons for the future. Heliyon, 2022, 8, e08733.	3.2	9
59	Using Induction to Generate Feedback in Simulation Based Discovery Learning Environments. Lecture Notes in Computer Science, 1998, , 196-205.	1.3	8
60	You escaped! How did you learn during gameplay?. British Journal of Educational Technology, 2022, 53, 1430-1458.	6.3	8
61	Aspects of computer simulations in an instructional context. Education and Computing, 1991, 6, 231-239.	0.2	7
62	Designing Adaptive Interventions for Online Collaborative Modeling. Education and Information Technologies, 2004, 9, 355-375.	5.7	7
63	Secondary Science Teachers's Views on Environmental Citizenship in The Netherlands. Sustainability, 2021, 13, 7963.	3.2	7
64	Using Drawings in Knowledge Modeling and Simulation for Science Teaching. Studies in Computational Intelligence, 2010, , 249-264.	0.9	6
65	Drawing-Based Simulation for Primary School Science Education: An Experimental Study of the GearSketch Learning Environment. , 2012, , .		6
66	Model-Based Diagnosis for Regulative Support in Inquiry Learning. Springer International Handbooks of Education, 2013, , 589-600.	0.1	6
67	A serious game for interactive teaching of Newton's laws. , 2016, , .		6
68	Authoring for Intelligent Simulation Based Instruction: A Model Based Approach. , 1992, , 619-635.		6
69	Drawing-Based Modeling in Teaching Elementary Biology as a Diagnostic Tool. Models and Modeling in Science Education, 2019, , 131-145.	0.6	6
70	Virtual Reality Enzymes: An Interdisciplinary and International Project Towards an Inquiry-Based Pedagogy. Gaming Media and Social Effects, 2019, , 45-54.	0.7	5
71	Pre-university students's conceptions regarding radiation and radioactivity in a medical context. International Journal of Science Education, 2021, 43, 179-196.	1.9	5
72	Lesson study as a research approach: a case study. International Journal for Lesson and Learning Studies, 2021, 10, 286-301.	0.9	5

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73	Modelling domain knowledge for intelligent simulation learning environments. Computers and Education, 1992, 18, 29-37.	8.3	4
74	A Broker Architecture for Integration of Heterogeneous Applications for Inquiry Learning. , 2007, , .		4
75	Designing an Intrinsically Integrated Educational Game on Newtonian Mechanics. Lecture Notes in Computer Science, 2019, , 123-133.	1.3	4
76	Prior knowledge of potential energy and the understanding of quantum mechanics. Physics Education, 2022, 57, 025012.	0.5	3
77	GearSketch: an adaptive drawing-based learning environment for the gears domain. Educational Technology Research and Development, 2014, 62, 555-570.	2.8	2
78	Bouncing droplets: a classroom experiment to visualize wave-particle duality on the macroscopic level. European Journal of Physics, 2016, 37, 055706.	0.6	2
79	Stimulating Mechanistic Reasoning in Physics Using Student-Constructed Stop-Motion Animations. Journal of Science Education and Technology, 2021, 30, 777-790.	3.9	2
80	Supporting collaborative discovery learning by presenting a tool. , 2005, , .		2
81	A Germ for Young European Scientists: Drawing-Based Modelling. Gaming Media and Social Effects, 2017, , 13-28.	0.7	2
82	CIEL, architectures for collaborative inquiry and experiential learning. , 2007, , .		1
83	VR biology, an interdisciplinary and international student project towards an inquiry-based pedagogy. , 2016, , .		1
84	Developing and Integrating an Augmented Reality App for Teaching and Learning About Enzymes. Gaming Media and Social Effects, 2021, , 137-150.	0.7	1
85	Engaging Preuniversity Students in Sustainability and Life Cycle Assessment in Upper-Secondary Chemistry Education: The Case of Polylactic Acid (PLA). Journal of Chemical Education, 2022, 99, 2991-2998.	2.3	1
86	Investigating an intervention to support computer simulation use in whole-class teaching. Learning: Research and Practice, 2016, 2, 27-43.	0.4	0
87	MODELLING DOMAIN KNOWLEDGE FOR INTELLIGENT SIMULATION LEARNING ENVIRONMENTS**The research reported was conducted in the project SIMULATE. SIMULATE is part of SAFE, a R&D project partially funded by the CEC under contract D1014 within the Exploratory Action of the DELTA programme. In total 17 partners are involved in the SAFE consortium of which Philips TDS is the prime contractor. The partners directly involved in SIMULATE are: Philips TDS (Fed. Rep. Germany), University of Leeds, University of Lancaster. , 1992, , 29-37.		0
88	Environmental Citizenship of Dutch Lower Secondary Students. , 2022, 14, .		0
89	Involving Teachers in the Design Process of a Teaching and Learning Trajectory to Foster Students's Systems Thinking. , 2022, , 41-62.		0