Cindy E Hmelo-Silver

List of Publications by Year
in descending order

96 papers	8,306 citations	172457 29 h-index	71685 76 g-index
105 all docs	105 docs citations	105 times ranked	4792 citing authors

#	Article	IF	Citations
1	Co-constructing Professional Vision: Teacher and Researcher Learning in Co-Design. Cognition and Instruction, 2022, 40, 7-26.	2.9	11
2	Collaborative Design as a Context for Teacher and Researcher Learning: Introduction to the Special Issue. Cognition and Instruction, 2022, 40, 1-6.	2.9	7
3	Synergies Among the Pillars. , 2022, , 1-16.		0
4	A learning analytics approach towards understanding collaborative inquiry in a problemâ€based learning environment. British Journal of Educational Technology, 2022, 53, 1321-1342.	6.3	10
5	Theoretical Perspectives on Complex Systems in Biology Education. , 2022, , 1-16.		2
6	Self-regulation and emotion matter: A case study of instructor interactions with a learning analytics dashboard. Computers and Education, 2021, 161, 104061.	8.3	26
7	Transfer as Progressive Re-Mediation of Object-Oriented Activity in School. Research in Mathematics Education, 2021, , 127-142.	0.3	1
8	How do Elementary Students Conceptualize Artificial Intelligence?. , 2021, , .		7
9	Detecting Disruptive Talk in Student Chat-Based Discussion within Collaborative Game-Based Learning Environments. , 2021, , .		9
10	Collaborative Interactions in Inquiry Learning. , 2021, , 239-255.		0
11	Net.Create: Network Visualization to Support Collaborative Historical Knowledge Building. International Journal of Computer-Supported Collaborative Learning, 2021, 16, 185-223.	3.0	1
12	Situating video as context for teacher learning. Learning, Culture and Social Interaction, 2021, 30, 100542.	1.8	9
13	Multidimensional trajectories for understanding ecosystems. Science Education, 2021, 105, 521-540.	3.0	9
14	Designing a Visual Interface for Elementary Students to Formulate AI Planning Tasks. , 2021, , .		6
15	Developing Historical Thinking in Large Lecture Classrooms Through PBL Inquiry Supported with Synergistic Scaffolding. Interdisciplinary Journal of Problem-based Learning, 2021, 15, .	0.5	1
16	An Overview of CSCL Methods. , 2021, , 65-83.		4
17	On activities and affordances for mobile learning. Contemporary Educational Psychology, 2020, 60, 101829.	2.9	24
18	Finding a place for equity in CSCL: ambitious learning practices as a lever for sustained educational change. International Journal of Computer-Supported Collaborative Learning, 2020, 15, 373-382.	3.0	21

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19	Coordinating scaffolds for collaborative inquiry in a gameâ€based learning environment. Journal of Research in Science Teaching, 2020, 57, 1490-1518.	3.3	20
20	Dialogic intervisualizing in multimodal inquiry. International Journal of Computer-Supported Collaborative Learning, 2020, 15, 283-318.	3.0	10
21	Increasing studentsâ€™ social engagement during COVID-19 with Net.Create: collaborative social network analysis to map historical pandemics during a pandemic. Information and Learning Science, 2020, 121, 533-547.	1.3	15
22	Benefits and Challenges of Interdisciplinarity in CSCL Research: A View From the Literature. Frontiers in Psychology, 2020, 11, 579986.	2.1	11
23	Detecting Off-Task Behavior from Student Dialogue in Game-Based Collaborative Learning. Lecture Notes in Computer Science, 2020, , 55-66.	1.3	12
24	â€œI Have Never Had A PBL Like This Beforeâ€: Interdisciplinary Journal of Problem-based Learning, 2020, 14, .	0.5	2
25	Toward Quality Online Problem-Based Learning. , 2020, , 367-390.		7
26	Designing a Collaborative Game-Based Learning Environment for AI-Infused Inquiry Learning in Elementary School Classrooms. , 2020, , .		8
27	Scaffolding and supporting use of information for ambitious learning practices. Information and Learning Science, 2019, 120, 39-58.	1.3	26
28	Ten years of Computer-Supported Collaborative Learning: A meta-analysis of CSCL in STEM education during 2005â€“2014. Educational Research Review, 2019, 28, 100284.	7.8	135
29	A call to action: A response to Osborne, Rafanelli, and Kind (2018). Journal of Research in Science Teaching, 2019, 56, 526-528.	3.3	3
30	Collaborative inquiry play. Information and Learning Science, 2019, 120, 547-566.	1.3	8
31	Coding schemes as lenses on collaborative learning. Information and Learning Science, 2019, 121, 1-18.	1.3	7
32	Designing and Developing Interactive Narratives for Collaborative Problem-Based Learning. Lecture Notes in Computer Science, 2019, , 86-100.	1.3	4
33	Scientific discourse of citizen scientists: Models as a boundary object for collaborative problem solving. Computers in Human Behavior, 2018, 87, 480-492.	8.5	24
34	Between the Social and the Technical: Negotiation of Human-Centered Robotics Design in a Middle School Classroom. International Journal of Social Robotics, 2018, 10, 309-324.	4.6	15
35	Designing human-centered robots: The role of constructive failure. Thinking Skills and Creativity, 2018, 30, 90-102.	3.5	9
36	Developing Modelâ€Building as a Scientific Practice in Collaborative Citizen Science. Journal of Natural Resources and Life Sciences Education, 2018, 47, 1-7.	1.5	1

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37	Learning Through Problem Solving. , 2018, , 210-220.		6
38	What Do Learning Scientists Do? A Survey of the ISLS Membership. Journal of the Learning Sciences, 2017, 26, 167-183.	2.9	58
39	Systems learning with a conceptual representation: a quasi-experimental study. Instructional Science, 2017, 45, 53-72.	2.0	77
40	Characterising the development of the understanding of human body systems in high-school biology students â€" a longitudinal study. International Journal of Science Education, 2017, 39, 2092-2127.	1.9	31
41	Introduction to special issue: models and tools for systems learning and instruction. Instructional Science, 2017, 45, 1-4.	2.0	13
42	Combining participatory modelling and citizen science to support volunteer conservation action. Biological Conservation, 2017, 208, 76-86.	4.1	57
43	Modeling with a Conceptual Representation: Is It Necessary? Does It Work?. Frontiers in ICT, 2017, 4, .	3.6	7
44	Computer-Supported Collaborative Learning in STEM Domains: Towards a Meta-synthesis. , 2017, , .		7
45	PMC-2E. , 2017, , 276-291.		2
46	Bridging the Benefits of Online and Community Supported Citizen Science: A Case Study on Motivation and Retention with Conservation-Oriented Volunteers. Citizen Science: Theory and Practice, 2017, 2, 4.	1.2	28
47	11. Cognitive Considerations in the Development of Citizen Science Projects. , 2017, , 165-178.		0
48	Dragons, Ladybugs, and Softballs: Girlsâ€™ STEM Engagement with Human-Centered Robotics. Journal of Science Education and Technology, 2016, 25, 899-914.	3.9	46
49	Seven Affordances of Computer-Supported Collaborative Learning: How to Support Collaborative Learning? How Can Technologies Help?. Educational Psychologist, 2016, 51, 247-265.	9.0	247
50	Studying citizen science through adaptive management and learning feedbacks as mechanisms for improving conservation. Conservation Biology, 2016, 30, 487-495.	4.7	44
51	Situated Learning and Educational Technologies: Theory and Practice. Advances in Medical Education, 2016, , 1-6.	0.4	9
52	CSCL in STEM Education: Preliminary Findings from a Meta-Analysis. , 2016, , .		5
53	Video as Context and Conduit for Problem-Based Learning. Advances in Medical Education, 2016, , 57-77.	0.4	6
54	Creating Instructor Dashboards to Foster Collaborative Learning in On-Line Medical Problem-Based Learning Situations. Lecture Notes in Computer Science, 2016, , 36-47.	1.3	5

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55	The role of regulation in medical student learning in small groups: Regulating oneself and othersâ€™ learning and emotions. Computers in Human Behavior, 2015, 52, 601-616.	8.5	66
56	Using representational tools to learn about complex systems: A tale of two classrooms. Journal of Research in Science Teaching, 2015, 52, 6-35.	3.3	49
57	Collaborative group engagement in a computer-supported inquiry learning environment. International Journal of Computer-Supported Collaborative Learning, 2015, 10, 273-307.	3.0	130
58	PROBLEM-BASED LEARNING:. , 2015, , 69-84.		13
59	THE LEARNING SPACE IN PROBLEM-BASED LEARNING. , 2015, , 43-56.		5
60	Inquiry, Learning Through. , 2015, , 514-516.		2
61	Technology-Supported Inquiry for Learning about Aquatic Ecosystems. Eurasia Journal of Mathematics, Science and Technology Education, 2014, 10, .	1.3	11
62	A Conceptual Representation to Support Ecological Systems Learning. Journal of Natural Resources and Life Sciences Education, 2014, 43, 141-146.	1.5	15
63	Balancing broad ideas with context: an evaluation of student accuracy in describing ecosystem processes after a system-level intervention. Journal of Biological Education, 2014, 48, 57-62.	1.5	28
64	An examination of CSCL methodological practices and the influence of theoretical frameworks 2005â€“2009. International Journal of Computer-Supported Collaborative Learning, 2014, 9, 305-334.	3.0	65
65	Using Online Digital Tools and Video to Support International Problem-Based Learning. Interdisciplinary Journal of Problem-based Learning, 2014, 8, .	0.5	39
66	Fostering Reasoning About Complex Systems: Using the Aquarium to Teach Systems Thinking. Applied Environmental Education and Communication, 2013, 12, 55-64.	1.1	31
67	Editorsâ€™ Farewell Note. Journal of the Learning Sciences, 2013, 22, 1-3.	2.9	3
68	Process-Based Thinking in Ecosystem Education. Journal of Natural Resources and Life Sciences Education, 2013, 42, 68-74.	1.5	6
69	Conceptual representations for transfer: A case study tracing back and looking forward. Frontline Learning Research, 2013, 1, .	0.8	11
70	Cognitive Considerations in the Development of Citizen Science Projects. , 2012, , 167-178.		9
71	Laboratory materials: Affordances or constraints?. Journal of Research in Science Teaching, 2011, 48, 1010-1025.	3.3	21
72	Evolution of an Integrated Technology for Supporting Learning about Complex Systems. , 2011, , .		3

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73	Productive use of learning resources in an online problem-based learning environment. Computers in Human Behavior, 2010, 26, 84-99.	8.5	64
74	Design and Reflection Help Students Develop Scientific Abilities: Learning in Introductory Physics Laboratories. Journal of the Learning Sciences, 2010, 19, 54-98.	2.9	164
75	An Assessment of Students' Understanding of Ecosystem Concepts: Conflating Ecological Systems and Cycles. Applied Environmental Education and Communication, 2009, 8, 40-48.	1.1	32
76	VISUAL REPRESENTATION OF A MULTIDIMENSIONAL CODING SCHEME FOR UNDERSTANDING TECHNOLOGY-MEDIATED LEARNING ABOUT COMPLEX NATURAL SYSTEMS. Research and Practice in Technology Enhanced Learning, 2009, 04, 253-280.	3.2	22
77	Promoting complex systems learning through the use of conceptual representations in hypermedia. Journal of Research in Science Teaching, 2009, 46, 1023-1040.	3.3	118
78	Learning progressions: Aligning curriculum, instruction, and assessment. Journal of Research in Science Teaching, 2009, 46, 606-609.	3.3	224
79	Understanding collaborative learning processes in new learning environments. Instructional Science, 2008, 36, 409-430.	2.0	57
80	Adding Behavior to Thinking about Structures & Functions. American Biology Teacher, 2008, 70, 329-330.	0.2	3
81	Facilitating Collaborative Knowledge Building. Cognition and Instruction, 2008, 26, 48-94.	2.9	321
82	Coding discussions and discussing coding: Research on collaborative learning in computer-supported environments. Learning and Instruction, 2007, 17, 460-464.	3.2	25
83	Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark (2006). Educational Psychologist, 2007, 42, 99-107.	9.0	1,475
84	Fish Swim, Rocks Sit, and Lungs Breathe: Expert-Novice Understanding of Complex Systems. Journal of the Learning Sciences, 2007, 16, 307-331.	2.9	313
85	Introduction: Cognitive Tools for Collaborative Communities. Journal of Educational Computing Research, 2006, 35, 97-102.	5.5	2
86	Cognitive Transfer Revisited: Can We Exploit New Media to Solve Old Problems on a Large Scale?. Journal of Educational Computing Research, 2006, 35, 145-162.	5.5	64
87	Goals and Strategies of a Problem-based Learning Facilitator. Interdisciplinary Journal of Problem-based Learning, 2006, 1, .	0.5	346
88	Understanding Complex Systems: Some Core Challenges. Journal of the Learning Sciences, 2006, 15, 53-61.	2.9	222
89	Learning to talk the educational psychology talk through a problem-based course. Instructional Science, 2004, 32, 319-356.	2.0	23
90	Comparing expert and novice understanding of a complex system from the perspective of structures, behaviors, and functions. Cognitive Science, 2004, 28, 127-138.	1.7	320

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91	Problem-Based Learning: What and How Do Students Learn?. Educational Psychology Review, 2004, 16, 235-266.	8.4	2,569
92	Analyzing collaborative knowledge construction. Computers and Education, 2003, 41, 397-420.	8.3	173
93	Cracking the Resource Nut With Distributed Problem-Based Learning in Secondary Teacher Education. Distance Education, 2002, 23, 23-39.	3.9	32
94	Authentic inquiry: Introduction to the special section. Science Education, 2002, 86, 171-174.	3.0	37
95	?It's harder than we thought it would be?: A comparative case study of expert-novice experimentation strategies. Science Education, 2002, 86, 219-243.	3.0	45
96	Problem-Based Learning. , 0, , .		9