Eric N Wiebe

List of Publications by Year
in descending order

106 papers	3,562 citations	331670 21 h-index	182427 51 g-index
112 all docs	112 docs citations	112 times ranked	2844 citing authors

#	Article	IF	Citations
1	The viability of crowdsourcing for survey research. Behavior Research Methods, 2011, 43, 800-813.	4.0	814
2	Cloud computing adoption and usage in community colleges. Behaviour and Information Technology, 2011, 30, 231-240.	4.0	206
3	Measuring engagement in video game-based environments: Investigation of the User Engagement Scale. Computers in Human Behavior, 2014, 32, 123-132.	8.5	193
4	In Support of Pair Programming in the Introductory Computer Science Course. Computer Science Education, 2002, 12, 197-212.	3.7	182
5	The Development and Validation of a Measure of Student Attitudes Toward Science, Technology, Engineering, and Math (S-STEM). Journal of Psychoeducational Assessment, 2015, 33, 622-639.	1.5	130
6	Improving the CS1 experience with pair programming. , 2003, , .		128
7	The influence of prior knowledge on viewing and interpreting graphics with macroscopic and molecular representations. Science Education, 2008, 92, 848-867.	3.0	111
8	Improving the CS1 experience with pair programming. SIGCSE Bulletin, 2003, 35, 359-362.	0.1	104
9	Writing to Learn by Learning to Write in the Disciplines. Journal of Business and Technical Communication, 2007, 21, 278-302.	2.0	98
10	Eye-Tracking Students' Attention to PowerPoint Photographs in a Science Education Setting. Journal of Science Education and Technology, 2005, 14, 509-520.	3.9	75
11	Automatically Recognizing Facial Indicators of Frustration: A Learning-centric Analysis. , 2013, , .		65
12	A Practical Guide to Developing and Validating Computer Science Knowledge Assessments with Application to Middle School. , 2015, , .		60
13	The Interpretation of Cellular Transport Graphics by Students with Low and High Prior Knowledge. International Journal of Science Education, 2008, 30, 239-261.	1.9	55
14	On understanding compatibility of student pair programmers. , 2004, , .		54
15	An examination of two mental workload measurement approaches to understanding multimedia learning. Computers in Human Behavior, 2010, 26, 474-481.	8.5	53
16	Visual Representations of DNA Replication: Middle Grades Studentsâ€™ Perceptions and Interpretations. Journal of Science Education and Technology, 2005, 14, 353-365.	3.9	52
17	The Relationship of STEM Attitudes and Career Interest. Eurasia Journal of Mathematics, Science and Technology Education, 2018, 14, .	1.3	52
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	Measuring Video Game Engagement Through the Cognitive and Affective Dimensions. Simulation and Gaming, 2014, 45, 569-592.	1.9	47
21	Use, Modify, Create. , 2019, , .		46
22	The Additive Value of Multimodal Features for Predicting Engagement, Frustration, and Learning during Tutoring. , 2014, , .		44
23	Empowering All Students. , 2016, , .		44
24	Predicting Learning from Student Affective Response to Tutor Questions. Lecture Notes in Computer Science, 2016, , 154-164.	1.3	41
25	DeepStealth: Game-Based Learning Stealth Assessment With Deep Neural Networks. IEEE Transactions on Learning Technologies, 2020, 13, 312-325.	3.2	40
26	Multimodal analysis of the implicit affective channel in computer-mediated textual communication. , 2012, , .		33
27	Development of a Lean Computational Thinking Abilities Assessment for Middle Grades Students. , 2019, , .		32
28	Exploring Force and Motion Concepts in Middle Grades Using Computational Modeling: a Classroom Intervention Study. Journal of Science Education and Technology, 2020, 29, 65-82.	3.9	31
29	Conceptualizing Magnification and Scale: The Roles of Spatial Visualization and Logical Thinking. Research in Science Education, 2011, 41, 357-368.	2.3	28
30	Embodied Affect in Tutorial Dialogue: Student Gesture and Posture. Lecture Notes in Computer Science, 2013, , 1-10.	1.3	27
31	The Code-Centric Nature of Computational Thinking Education: A Review of Trends and Issues in Computational Thinking Education Research. SAGE Open, 2021, 11, 215824402110164.	1.7	24
32	Infusing computational thinking into middle grade science classrooms. , 2018, , .		21
33	CS principles goes to middle school. , 2014, , .		19
34	Generating Educational Game Levels with Multistep Deep Convolutional Generative Adversarial Networks. , 2019, , .		19
35	Physiological Responses to Events during Training. Proceedings of the Human Factors and Ergonomics Society, 2013, 57, 2101-2105.	0.3	18
36	Utility and usability as factors influencing teacher decisions about software integration. Educational Technology Research and Development, 2016, 64, 1227-1249.	2.8	18

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37	Do You Think You Can? The Influence of Student Self-Efficacy on the Effectiveness of Tutorial Dialogue for Computer Science. International Journal of Artificial Intelligence in Education, 2017, 27, 130-153.	5.5	18
38	A Multimodal Assessment Framework for Integrating Student Writing and Drawing in Elementary Science Learning. IEEE Transactions on Learning Technologies, 2019, 12, 3-15.	3.2	18
39	The Mars and Venus Effect: The Influence of User Gender on the Effectiveness of Adaptive Task Support. Lecture Notes in Computer Science, 2015, , 265-276.	1.3	17
40	The Relationship of Gender, Experiential, and Psychological Factors to Achievement in Computer Science. , 2020, , .		17
41	Collaboration and Gender Equity in Game-Based Learning for Middle School Computer Science. Computing in Science and Engineering, 2016, 18, 18-28.	1.2	16
42	Building a computational model of food webs: Impacts on middle school students' computational and systems thinking skills. Journal of Research in Science Teaching, 2022, 59, 585-618.	3.3	16
43	DeepStealth: Leveraging Deep Learning Models for Stealth Assessment in Game-Based Learning Environments. Lecture Notes in Computer Science, 2015, , 277-286.	1.3	15
44	Drawing and Writing in Digital Science Notebooks: Sources of Formative Assessment Data. Journal of Science Education and Technology, 2016, 25, 474-488.	3.9	15
45	A Comparison of Two Pair Programming Configurations for Upper Elementary Students. , 2020, , .		15
46	Theoretical and Instructional Aspects of Learning with Visualizations. , 2009, , 67-88.		15
47	Measuring in-service teacher self-efficacy for teaching computational thinking: development and validation of the T-STEM CT. Education and Information Technologies, 2021, 26, 4663-4689.	5.7	14
48	The Cross-Case Analyses of Elementary Studentsâ€™ Engagement in the Strands of Science Proficiency. Journal of Science Teacher Education, 2010, 21, 559-587.	2.5	13
49	Investigating Real-time Predictors of Engagement. International Journal of Gaming and Computer-Mediated Simulations, 2015, 7, 20-37.	1.1	13
50	Pair Learning: With an Eye Toward Future Success. Lecture Notes in Computer Science, 2003, , 185-198.	1.3	12
51	The Role of Content Knowledge in Ill-Structured Problem Solving for High School Physics Students. Research in Science Education, 2018, 48, 165-179.	2.3	12
52	Development and validation of the Computer Science Attitudes Scale for middle school students (MG-CS attitudes). Computers in Human Behavior Reports, 2020, 2, 100018.	4.0	12
53	Interaction effects of race and gender in elementary CS attitudes: A validation and cross-sectional study. International Journal of Child-Computer Interaction, 2021, 29, 100293.	3.5	12
54	Curriculum as Experienced by Students: How Teacher Identity Shapes Science Notebook Use. Research in Science Education, 2013, 43, 2567-2592.	2.3	11

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55	Multiple Perspectives on Elementary Teachersâ€™ Science Identities: A case study. International Journal of Science Education, 2015, 37, 391-410.	1.9	10
56	MOOCs From the Viewpoint of the Learner. Educational Researcher, 2015, 44, 252-254.	5.4	10
57	Gender Differences in Facial Expressions of Affect During Learning. , 2016, , .		10
58	Promoting Computer Science Learning with Block-Based Programming and Narrative-Centered Gameplay. , 2020, , .		10
59	Modeling Secondary Studentsâ€™ Genetics Learning in a Game-Based Environment: Integrating the Expectancy-Value Theory of Achievement Motivation and Flow Theory. Journal of Science Education and Technology, 2021, 30, 511-528.	3.9	10
60	Two-Computer Pair Programming: Exploring a Feedback Intervention to improve Collaborative Talk in Elementary Students. Computer Science Education, 2022, 32, 3-29.	3.7	10
61	â€œThanks Alisha, Keep in Touchâ€: Gender Effects and Engagement with Virtual Learning Companions. Lecture Notes in Computer Science, 2017, , 299-310.	1.3	10
62	Inducing Stealth Assessors from Game Interaction Data. Lecture Notes in Computer Science, 2017, , 212-223.	1.3	9
63	Evaluating the Effectiveness of Scientific Visualization In Two PowerPoint Delivery Strategies on Science Learning for Preservice Science Teachers. International Journal of Science and Mathematics Education, 2007, 5, 329-348.	2.5	8
64	Leveraging collaboration to improve gender equity in a game-based learning environment for middle school computer science. , 2015, , .		8
65	Introducing the Computer Science Concept of Variables in Middle School Science Classrooms. , 2018, , .		8
66	An alternative to STEBI-A: validation of the T-STEM science scale. International Journal of STEM Education, 2022, 9, .	5.0	8
67	BioMusic in the Classroom: Interdisciplinary Elementary Science and Music Curriculum Development. School Science and Mathematics, 2011, 111, 425-434.	0.9	7
68	Position: IntelliBlox: A Toolkit for Integrating Block-Based Programming into Game-Based Learning Environments. , 2019, , .		7
69	Mind the Gap: Improving Gender Equity in Game-Based Learning Environments with Learning Companions. Lecture Notes in Computer Science, 2015, , 64-73.	1.3	7
70	Elementary Studentsâ€™ Understanding of CS Terms. ACM Transactions on Computing Education, 2020, 20, 1-19.	3.5	7
71	Exploring Middle School Students' Reflections on the Infusion of CS into Science Classrooms. , 2020, , .		6
72	Evaluating Gender Differences of Attitudes and Perceptions Toward PowerPoint for Preservice Science Teachers. Eurasia Journal of Mathematics, Science and Technology Education, 2007, 3, .	1.3	6

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73	CEO. , 2019, , .		5
74	From 'Use' to 'Choose'. , 2019, , .		5
75	The Interface Design of a Collaborative Computer Science Learning Environment for Elementary Aged Students. Proceedings of the Human Factors and Ergonomics Society, 2019, 63, 493-497.	0.3	5
76	Progression Trajectory-Based Student Modeling for Novice Block-Based Programming. , 2021, , .		5
77	Development and Validation of the Middle Grades Computer Science Concept Inventory (MG-CSCI) Assessment. Eurasia Journal of Mathematics, Science and Technology Education, 2020, 16, .	1.3	5
78	Generating Game Levels to Develop Computer Science Competencies in Game-Based Learning Environments. Lecture Notes in Computer Science, 2020, , 240-245.	1.3	5
79	From Doodles to Designs. , 2019, , .		4
80	Co-teaching with an immersive digital game: supporting teacher-game instructional partnerships. Educational Technology Research and Development, 2021, 69, 1453-1475.	2.8	4
81	Predicting Dialogue Breakdown in Conversational Pedagogical Agents with Multimodal LSTMs. Lecture Notes in Computer Science, 2019, , 195-200.	1.3	4
82	Two Modes are Better Than One: a Multimodal Assessment Framework Integrating Student Writing and Drawing. Lecture Notes in Computer Science, 2015, , 205-215.	1.3	4
83	eLearning. , 2016, , 53-79.		4
84	Attitudes about the Internet: Implications for Use in Education. Journal of Educational Technology Systems, 2002, 31, 143-156.	5.8	3
85	Middle Grade Students' Interpretations of Contour Maps. School Science and Mathematics, 2008, 108, 71-79.	0.9	3
86	Embedding Secondary Tasks in Video Games to Measure Real-Time Cognitive Load: An Approach to Developing Adaptive Video Games. Proceedings of the Human Factors and Ergonomics Society, 2012, 56, 2147-2151.	0.3	3
87	The effects of prior experience and gender on middle school students' computer science learning and monitoring accuracy in the Use-Modify-Create progression. Learning and Individual Differences, 2021, 86, 101983.	2.7	3
88	The Relationship of CS Attitudes, Perceptions of Collaboration, and Pair Programming Strategies on Upper Elementary Students' CS Learning. , 2021, , .		3
89	Prompting collaborative and exploratory discourse: An epistemic network analysis study. International Journal of Computer-Supported Collaborative Learning, 2021, 16, 339.	3.0	3
90	Toward More Generalizable CS and CT Instruments. , 2022, , .		3

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91	Adding agility to CAD: Integrating product data management tools into an organization. Human Factors and Ergonomics in Manufacturing, 1997, 7, 21-35.	2.7	2
92	Integration of Electronic Mail into Schools. Journal of Educational Computing Research, 1999, 21, 55-73.	5.5	2
93	User Affect and No-Match Dialogue Scenarios. , 2018, , .		2
94	Comparing Computer Usage by Students in Education Programs to Technology Education Majors. Journal of Technology Education, 2002, 13, .	0.8	2
95	The Role of Teachersâ€™ Self-efficacy Beliefs and Habits in Differentiating Types of Kâ€“12 Science Teachers. Research in Science Education, 2023, 53, 337-355.	2.3	2
96	Evaluation of Alternative Methods of Representing Three-Dimensional Objects on Computer Displays. Proceedings of the Human Factors and Ergonomics Society, 1994, 38, 1326-1330.	0.3	1
97	Understanding the Diversity of Student Computing Activity. Journal of Educational Technology Systems, 2001, 29, 291-311.	5.8	1
98	Deep realities. ACM Journal of Computer Documentation, 2000, 24, 220-226.	0.1	1
99	â€œI remember how to do itâ€: exploring upper elementary studentsâ€™ collaborative regulation while pair programming using epistemic network analysis. Computer Science Education, 2023, 33, 429-457.	3.7	1
100	Changes and Sources of Changes of Middle School Teachersâ€™ Self-efficacy for Teaching Science in A Computationally Rich Environment: A Mixed-Methods Study. Journal of Science Teacher Education, 2023, 34, 132-156.	2.5	1
101	Using Site-Based Techniques to Evolve the Product Development Process in Manufacturing Industries. Proceedings of the Human Factors and Ergonomics Society, 1998, 42, 994-998.	0.3	0
102	Educators Working Smarter: A Closer Look at a Local Community of Practice. Action in Teacher Education, 2004, 26, 44-51.	0.7	0
103	Supporting Students' Computer Science Learning with a Game-based Learning Environment that Integrates a Use-Modify-Create Scaffolding Framework. , 2021, , .		0
104	Memory and Science Learning. , 2014, , 1-5.		0
105	A block-based modeling curriculum for teaching middle grade science students about Covid-19. , 2020, , .		0
106	The Foundations of Collaborative Programming by Elementary-Aged Children. Educational Communications and Technology: Issues and Innovations, 2021, , 53-72.	0.2	0