Hsin-Kai Wu

List of Publications by Year
in descending order

61 papers	4,288 citations	218677 26 h-index	168389 53 g-index
62 all docs	62 docs citations	62 times ranked	3141 citing authors

#	Article	IF	Citations
1	Current status, opportunities and challenges of augmented reality in education. Computers and Education, 2013, 62, 41-49.	8.3	1,478
2	Exploring visuospatial thinking in chemistry learning. Science Education, 2004, 88, 465-492.	3.0	458
3	Promoting understanding of chemical representations: Students' use of a visualization tool in the classroom. Journal of Research in Science Teaching, 2001, 38, 821-842.	3.3	427
4	Developing Sixth Gradersâ€™ Inquiry Skills to Construct Explanations in Inquiryâ€based Learning Environments. International Journal of Science Education, 2006, 28, 1289-1313.	1.9	108
5	Integrating a mobile augmented reality activity to contextualize student learning of a socioscientific issue. British Journal of Educational Technology, 2013, 44, E95.	6.3	106
6	The nature of middle school learners' science content understandings with the use of on-line resources. Journal of Research in Science Teaching, 2003, 40, 323-346.	3.3	103
7	A Comparative Study on Commercial Samples of Ginseng Radix. Planta Medica, 1995, 61, 459-465.	1.3	100
8	Developing and validating technological pedagogical content knowledgeâ€practical (<scp>TPACK</scp>â€practical) through the <scp>D</scp>elphi survey technique. British Journal of Educational Technology, 2014, 45, 707-722.	6.3	95
9	An Investigation of Software Scaffolds Supporting Modeling Practices. Research in Science Education, 2002, 32, 567-589.	2.3	92
10	Inscriptional practices in two inquiry-based classrooms: A case study of seventh graders' use of data tables and graphs. Journal of Research in Science Teaching, 2006, 43, 63-95.	3.3	92
11	Ninth-grade student engagement in teacher-centered and student-centered technology-enhanced learning environments. Science Education, 2007, 91, 727-749.	3.0	80
12	Pedagogical Affordances of Multiple External Representations in Scientific Processes. Journal of Science Education and Technology, 2012, 21, 754-767.	3.9	72
13	An investigation of teachersâ€™ beliefs and their use of technology-based assessments. Computers in Human Behavior, 2014, 31, 198-210.	8.5	56
14	Using Scaffolding Strategies to Promote Young Childrenâ€™s Scientific Understandings of Floating and Sinking. Journal of Science Education and Technology, 2011, 20, 656-666.	3.9	53
15	Linking the microscopic view of chemistry to real-life experiences: Intertextuality in a high-school science classroom. Science Education, 2003, 87, 868-891.	3.0	52
16	Toward an integrated model for designing assessment systems: An analysis of the current status of computer-based assessments in science. Computers and Education, 2013, 68, 388-403.	8.3	52
17	Science teachers' TPACK-Practical: Standard-setting using an evidence-based approach. Computers and Education, 2016, 95, 45-62.	8.3	52
18	A review of features of technology-supported learning environments based on participantsâ€™ perceptions. Computers in Human Behavior, 2015, 53, 223-237.	8.5	48

#	Article	IF	Citations
19	Modelling a Complex System: Using noviceâ€expert analysis for developing an effective technologyâ€enhanced learning environment. International Journal of Science Education, 2010, 32, 195-219.	1.9	44
20	Capillary electrophoretic determination of the constituents of paeoniae radix. Journal of Chromatography A, 1996, 753, 139-146.	3.7	41
21	Separation of nine iridoids by capillary electrophoresis and high-performance liquid chromatography. Journal of Chromatography A, 1998, 803, 179-187.	3.7	40
22	Studentsâ€™ development of socio-scientific reasoning in a mobile augmented reality learning environment. International Journal of Science Education, 2018, 40, 1410-1431.	1.9	36
23	A comparison study of augmented reality versus interactive simulation technology to support student learning of a socio-scientific issue. Interactive Learning Environments, 2016, 24, 1148-1161.	6.4	32
24	Investigating the effects of structured and guided inquiry on studentsâ€™ development of conceptual knowledge and inquiry abilities: a case study in Taiwan. International Journal of Science Education, 2016, 38, 1945-1971.	1.9	32
25	Development and implications of technology in reform-based physics laboratories. Physical Review Physics Education Research, 2012, 8, .	1.7	31
26	What makes an item more difficult? Effects of modality and type of visual information in a computer-based assessment of scientific inquiry abilities. Computers and Education, 2015, 85, 35-48.	8.3	31
27	Using mobile applications for learning: Effects of simulation design, visual-motor integration, and spatial ability on high school studentsâ€™ conceptual understanding. Computers in Human Behavior, 2017, 66, 103-113.	8.5	31
28	Exploring the Development of Fifth Gradersâ€™ Practical Epistemologies and Explanation Skills in Inquiry-Based Learning Classrooms. Research in Science Education, 2011, 41, 319-340.	2.3	29
29	Effects of representation sequences and spatial ability on studentsâ€™ scientific understandings about the mechanism of breathing. Instructional Science, 2013, 41, 555-573.	2.0	28
30	Development and Validation of a Multimedia-based Assessment of Scientific Inquiry Abilities. International Journal of Science Education, 2015, 37, 2326-2357.	1.9	28
31	Exploring the structure of TPACK with video-embedded and discipline-focused assessments. Computers and Education, 2017, 104, 49-64.	8.3	28
32	Fostering High School Studentsâ€™ Conceptual Understandings About Seasons: The Design of a Technology-enhanced Learning Environment. Research in Science Education, 2008, 38, 127-147.	2.3	27
33	Designing Applications for Physics Learning: Facilitating High School Students' Conceptual Understanding by Using Tablet PCS. Journal of Educational Computing Research, 2015, 51, 441-458.	5.5	27
34	Learning benefits of secondary school students' inquiryâ€related curiosity: A crossâ€grade comparison of the relationships among learning experiences, curiosity, engagement, and inquiry abilities. Science Education, 2018, 102, 917-950.	3.0	26
35	The Roles of Multimedia in the Teaching and Learning of the Triplet Relationship in Chemistry. Models and Modeling in Science Education, 2009, , 251-283.	0.6	25
36	Students' Understanding of the Particulate Nature of Matter. School Science and Mathematics, 2003, 103, 28-44.	0.9	21

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37	Exploring middle school students' use of inscriptions in project-based science classrooms. Science Education, 2006, 90, 852-873.	3.0	20
38	Studentsâ€™ Views of Scientific Models and Modeling: Do Representational Characteristics of Models and Studentsâ€™ Educational Levels Matter?. Research in Science Education, 2017, 47, 305-328.	2.3	20
39	High-School Studentsâ€™ Epistemic Knowledge of Science and Its Relation to Learner Factors in Science Learning. Research in Science Education, 2018, 48, 325-344.	2.3	18
40	Constructing a model of engagement in scientific inquiry: investigating relationships between inquiry-related curiosity, dimensions of engagement, and inquiry abilities. Instructional Science, 2020, 48, 79-113.	2.0	17
41	Factors Affecting Teachersâ€™ Adoption of Technology in Classrooms: Does School Size Matter?. International Journal of Science and Mathematics Education, 2007, 6, 63-85.	2.5	12
42	Establishing the Criterion-related, Construct, and Content Validities of a Simulation-based Assessment of Inquiry Abilities. International Journal of Science Education, 2014, 36, 1630-1650.	1.9	12
43	Examining influences of science teachers' practices and beliefs about technology-based assessment on studentsâ€™ performances: A hierarchical linear modeling approach. Computers and Education, 2020, 157, 103986.	8.3	11
44	Investigating College and Graduate Studentsâ€™ Multivariable Reasoning in Computational Modeling. Science Education, 2013, 97, 337-366.	3.0	10
45	Effects of different ways of using visualizations on high school studentsâ€™ electrochemistry conceptual understanding and motivation towards chemistry learning. Chemistry Education Research and Practice, 0, , .	2.5	10
46	A Novice-Expert Study of Modeling Skills and Knowledge Structures about Air Quality. Journal of Science Education and Technology, 2012, 21, 588-606.	3.9	9
47	Assessing the Technological Pedagogical Content Knowledge of Pre-Service Science Teachers at a South African University. International Journal of Information and Communication Technology Education, 2021, 17, 123-136.	1.0	7
48	Science teaching in kindergartens: factors associated with teachersâ€™ self-efficacy and outcome expectations for integrating science into teaching. International Journal of Science Education, 2022, 44, 1045-1066.	1.9	7
49	Teachersâ€™ Beliefs About, Attitudes Toward, and Intention to Use Technology-Based Assessments: a Structural Equation Modeling Approach. Eurasia Journal of Mathematics, Science and Technology Education, 2018, 14, .	1.3	6
50	An Analysis of Selected South African Grade 12 Physical Sciences Textbooks for the Inclusion of the NGSS Science Practices. Canadian Journal of Science, Mathematics and Technology Education, 2021, 21, 539-552.	1.0	6
51	The TPACK-P Framework for Science Teachers in a Practical Teaching Context. , 2015, , 17-32.		6
52	Tenth gradersâ€™ problem-solving performance, self-efficacy, and perceptions of physics problems with different representational formats. Physical Review Physics Education Research, 2018, 14, .	2.9	6
53	Implementers, designers, and disseminators of integrated STEM activities: self-efficacy and commitment. Research in Science and Technological Education, 0, , 1-19.	2.5	6
54	Implementing a Project-Based Learning Module in Urban and Indigenous Areas to Promote Young Childrenâ€™s Scientific Practices. Research in Science Education, 0, , 1.	2.3	6

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55	The Impact of a Mobile Augmented Reality Game: Changing Students' Perceptions of the Complexity of Socioscientific Reasoning. , 2016, , .		5
56	Developing Technology-Infused Inquiry Learning Modules to Promote Science Learning in Taiwan. , 2015, , 373-403.		3
57	Rubrics of TPACK-P for Teaching Science with ICTs. , 2015, , 53-70.		3
58	Whole Class Dialogic Discussion Meets Taiwanâ€™s Physics Teachers: Attitudes and Culture. Journal of Science Education and Technology, 2014, 23, 183-197.	3.9	1
59	Supporting scientific modeling practices in atmospheric sciences: intended and actual affordances of a computer-based modeling tool. Interactive Learning Environments, 2015, 23, 748-765.	6.4	1
60	Examining secondary school studentsâ€™ views of model evaluation through an integrated framework of personal epistemology. Instructional Science, 2021, 49, 1-26.	2.0	1
61	Introducing Taiwanese undergraduate students to the nature of science through Nobel Prize stories. Physical Review Physics Education Research, 2013, 9, .	1.7	0