Hsin-Kai Wu

List of Publications by Year
in descending order

61 papers	4,288 citations	218592 26 h-index	168321 53 g-index
62 all docs	62 docs citations	62 times ranked	3141 citing authors

#	Article	IF	Citations
1	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.	1.0	7
2	Examining secondary school studentsâ€™ views of model evaluation through an integrated framework of personal epistemology. Instructional Science, 2021, 49, 1-26.	1.1	1
3	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.	0.8	7
4	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.	0.6	6
5	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.	5.1	11
6	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.	1.1	17
7	High-School Studentsâ€™ Epistemic Knowledge of Science and Its Relation to Learner Factors in Science Learning. Research in Science Education, 2018, 48, 325-344.	1.4	18
8	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, .	0.7	6
9	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.	1.8	26
10	Studentsâ€™ development of socio-scientific reasoning in a mobile augmented reality learning environment. International Journal of Science Education, 2018, 40, 1410-1431.	1.0	36
11	Tenth gradersâ€™ problem-solving performance, self-efficacy, and perceptions of physics problems with different representational formats. Physical Review Physics Education Research, 2018, 14, .	1.4	6
12	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.	1.4	20
13	Exploring the structure of TPACK with video-embedded and discipline-focused assessments. Computers and Education, 2017, 104, 49-64.	5.1	28
14	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.	5.1	31
15	The Impact of a Mobile Augmented Reality Game: Changing Students' Perceptions of the Complexity of Socioscientific Reasoning. , 2016, , .		5
16	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.	4.4	32
17	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.	1.0	32
18	Science teachers' TPACK-Practical: Standard-setting using an evidence-based approach. Computers and Education, 2016, 95, 45-62.	5.1	52

#	Article	IF	Citations
19	Supporting scientific modeling practices in atmospheric sciences: intended and actual affordances of a computer-based modeling tool. Interactive Learning Environments, 2015, 23, 748-765.	4.4	1
20	A review of features of technology-supported learning environments based on participantsâ€™ perceptions. Computers in Human Behavior, 2015, 53, 223-237.	5.1	48
21	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.	5.1	31
22	Development and Validation of a Multimedia-based Assessment of Scientific Inquiry Abilities. International Journal of Science Education, 2015, 37, 2326-2357.	1.0	28
23	Designing Applications for Physics Learning: Facilitating High School Students' Conceptual Understanding by Using Tablet PCS. Journal of Educational Computing Research, 2015, 51, 441-458.	3.6	27
24	Developing Technology-Infused Inquiry Learning Modules to Promote Science Learning in Taiwan. , 2015, , 373-403.		3
25	The TPACK-P Framework for Science Teachers in a Practical Teaching Context. , 2015, , 17-32.		6
26	Rubrics of TPACK-P for Teaching Science with ICTs. , 2015, , 53-70.		3
27	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.	1.0	12
28	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.	3.9	95
29	Whole Class Dialogic Discussion Meets Taiwanâ€™s Physics Teachers: Attitudes and Culture. Journal of Science Education and Technology, 2014, 23, 183-197.	2.4	1
30	An investigation of teachersâ€™ beliefs and their use of technology-based assessments. Computers in Human Behavior, 2014, 31, 198-210.	5.1	56
31	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.	5.1	52
32	Effects of representation sequences and spatial ability on studentsâ€™ scientific understandings about the mechanism of breathing. Instructional Science, 2013, 41, 555-573.	1.1	28
33	Investigating College and Graduate Studentsâ€™ Multivariable Reasoning in Computational Modeling. Science Education, 2013, 97, 337-366.	1.8	10
34	Current status, opportunities and challenges of augmented reality in education. Computers and Education, 2013, 62, 41-49.	5.1	1,478
35	Integrating a mobile augmented reality activity to contextualize student learning of a socioscientific issue. British Journal of Educational Technology, 2013, 44, E95.	3.9	106
36	Introducing Taiwanese undergraduate students to the nature of science through Nobel Prize stories. Physical Review Physics Education Research, 2013, 9, .	1.7	0

#	Article	IF	Citations
37	Development and implications of technology in reform-based physics laboratories. Physical Review Physics Education Research, 2012, 8, .	1.7	31
38	A Novice-Expert Study of Modeling Skills and Knowledge Structures about Air Quality. Journal of Science Education and Technology, 2012, 21, 588-606.	2.4	9
39	Pedagogical Affordances of Multiple External Representations in Scientific Processes. Journal of Science Education and Technology, 2012, 21, 754-767.	2.4	72
40	Using Scaffolding Strategies to Promote Young Childrenâ€™s Scientific Understandings of Floating and Sinking. Journal of Science Education and Technology, 2011, 20, 656-666.	2.4	53
41	Exploring the Development of Fifth Gradersâ€™ Practical Epistemologies and Explanation Skills in Inquiry-Based Learning Classrooms. Research in Science Education, 2011, 41, 319-340.	1.4	29
42	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.	1.0	44
43	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
44	Fostering High School Studentsâ€™ Conceptual Understandings About Seasons: The Design of a Technology-enhanced Learning Environment. Research in Science Education, 2008, 38, 127-147.	1.4	27
45	Ninth-grade student engagement in teacher-centered and student-centered technology-enhanced learning environments. Science Education, 2007, 91, 727-749.	1.8	80
46	Factors Affecting Teachersâ€™ Adoption of Technology in Classrooms: Does School Size Matter?. International Journal of Science and Mathematics Education, 2007, 6, 63-85.	1.5	12
47	Exploring middle school students' use of inscriptions in project-based science classrooms. Science Education, 2006, 90, 852-873.	1.8	20
48	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.	2.0	92
49	Developing Sixth Gradersâ€™ Inquiry Skills to Construct Explanations in Inquiryâ€based Learning Environments. International Journal of Science Education, 2006, 28, 1289-1313.	1.0	108
50	Exploring visuospatial thinking in chemistry learning. Science Education, 2004, 88, 465-492.	1.8	458
51	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.	2.0	103
52	Linking the microscopic view of chemistry to real-life experiences: Intertextuality in a high-school science classroom. Science Education, 2003, 87, 868-891.	1.8	52
53	Students' Understanding of the Particulate Nature of Matter. School Science and Mathematics, 2003, 103, 28-44.	0.5	21
54	An Investigation of Software Scaffolds Supporting Modeling Practices. Research in Science Education, 2002, 32, 567-589.	1.4	92

#	Article	IF	Citations
55	Promoting understanding of chemical representations: Students' use of a visualization tool in the classroom. Journal of Research in Science Teaching, 2001, 38, 821-842.	2.0	427
56	Separation of nine iridoids by capillary electrophoresis and high-performance liquid chromatography. Journal of Chromatography A, 1998, 803, 179-187.	1.8	40
57	Capillary electrophoretic determination of the constituents of paeoniae radix. Journal of Chromatography A, 1996, 753, 139-146.	1.8	41
58	A Comparative Study on Commercial Samples of Ginseng Radix. Planta Medica, 1995, 61, 459-465.	0.7	100
59	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, , .	1.4	10
60	Implementers, designers, and disseminators of integrated STEM activities: self-efficacy and commitment. Research in Science and Technological Education, 0, , 1-19.	1.4	6
61	Implementing a Project-Based Learning Module in Urban and Indigenous Areas to Promote Young Childrenâ€™s Scientific Practices. Research in Science Education, 0, , 1.	1.4	6