Zacharias C Zacharia

List of Publications by Year
in descending order

		236925	302126
47 papers	4,071 citations	25 h-index	39 g-index
48 all docs	48 docs citations	48 times ranked	2303 citing authors

#	Article	IF	Citations
1	Phases of inquiry-based learning: Definitions and the inquiry cycle. Educational Research Review, 2015, 14, 47-61.	7.8	895
2	Physical and Virtual Laboratories in Science and Engineering Education. Science, 2013, 340, 305-308.	12.6	567
3	Comparing and combining real and virtual experimentation: an effort to enhance students' conceptual understanding of electric circuits. Journal of Computer Assisted Learning, 2007, 23, 120-132.	5.1	234
4	Physical versus virtual manipulative experimentation in physics learning. Learning and Instruction, 2011, 21, 317-331.	3.2	192
5	Blending physical and virtual manipulatives: An effort to improve students' conceptual understanding through science laboratory experimentation. Science Education, 2012, 96, 21-47.	3.0	181
6	Effects of experimenting with physical and virtual manipulatives on students' conceptual understanding in heat and temperature. Journal of Research in Science Teaching, 2008, 45, 1021-1035.	3.3	159
7	Beliefs, attitudes, and intentions of science teachers regarding the educational use of computer simulations and inquiry-based experiments in physics. Journal of Research in Science Teaching, 2003, 40, 792-823.	3.3	157
8	The effects of an interactive computer-based simulation prior to performing a laboratory inquiry-based experiment on studentsâ€™ conceptual understanding of physics. American Journal of Physics, 2003, 71, 618-629.	0.7	148
9	Modeling-based learning in science education: cognitive, metacognitive, social, material and epistemological contributions. Educational Review, 2012, 64, 471-492.	3.7	144
10	Peer versus expert feedback: An investigation of the quality of peer feedback among secondary school students. Computers and Education, 2014, 71, 133-152.	8.3	113
11	Identifying potential types of guidance for supporting student inquiry when using virtual and remote labs in science: a literature review. Educational Technology Research and Development, 2015, 63, 257-302.	2.8	111
12	Comparing the influence of physical and virtual manipulatives in the context of the <i>Physics by Inquiry</i> curriculum: The case of undergraduate studentsâ€™ conceptual understanding of heat and temperature. American Journal of Physics, 2008, 76, 425-430.	0.7	109
13	Making the invisible visible: enhancing studentsâ€™ conceptual understanding by introducing representations of abstract objects in a simulation. Instructional Science, 2013, 41, 575-596.	2.0	91
14	Is physicality an important aspect of learning through science experimentation among kindergarten students?. Early Childhood Research Quarterly, 2012, 27, 447-457.	2.7	84
15	The Effects on Studentsâ€™ Conceptual Understanding of Electric Circuits of Introducing Virtual Manipulatives Within a Physical Manipulatives-Oriented Curriculum. Cognition and Instruction, 2014, 32, 101-158.	2.9	83
16	Urban middle-school students' attitudes toward a defined science. Science Education, 2004, 88, 197-222.	3.0	78
17	Investigating secondary school studentsâ€™ unmediated peer assessment skills. Learning and Instruction, 2011, 21, 506-519.	3.2	73
18	Learning by creating and exchanging objects: The SCY experience. British Journal of Educational Technology, 2010, 41, 909-921.	6.3	68

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19	The Impact of Interactive Computer Simulations on the Nature and Quality of Postgraduate Science Teachersâ€™ Explanations in Physics. International Journal of Science Education, 2005, 27, 1741-1767.	1.9	66
20	In Quest of productive modelingâ€based learning discourse in elementary school science. Journal of Research in Science Teaching, 2011, 48, 919-951.	3.3	59
21	Examining whether touch sensory feedback is necessary for science learning through experimentation: A literature review of two different lines of research across K-16. Educational Research Review, 2015, 16, 116-137.	7.8	51
22	Using scenarios to design complex technology-enhanced learning environments. Educational Technology Research and Development, 2012, 60, 883-901.	2.8	43
23	Examining Learning Through Modeling in K-6 Science Education. Journal of Science Education and Technology, 2015, 24, 192-215.	3.9	41
24	Modeling complex marine ecosystems: an investigation of two teaching approaches with fifth graders. Journal of Computer Assisted Learning, 2007, 23, 145-157.	5.1	29
25	Understanding teacher design practices for digital inquiryâ€“based science learning: the case of Go-Lab. Educational Technology Research and Development, 2021, 69, 417-444.	2.8	29
26	The use of mobile devices as means of data collection in supporting elementary school studentsâ€™ conceptual understanding about plants. International Journal of Science Education, 2016, 38, 596-620.	1.9	28
27	Identification, Interpretationâ€"Evaluation, Response: An alternative framework for analyzing teacher discourse in science. International Journal of Science Education, 2012, 34, 1823-1856.	1.9	27
28	Using Physical and Virtual Manipulatives to Improve Primary School Studentsâ€™ Understanding of Concepts of Electric Circuits. Innovations in Science Education and Technology, 2016, , 125-140.	0.3	27
29	Ninthâ€grade students' perceptions of the factors that led them to major in high school science, technology, engineering, and mathematics disciplines. Science Education, 2019, 103, 1176-1205.	3.0	26
30	Providing guidance in virtual lab experimentation: the case of an experiment design tool. Educational Technology Research and Development, 2018, 66, 767-791.	2.8	25
31	The effect of two different cooperative approaches on studentsâ€™ learning and practices within the context of a WebQuest science investigation. Educational Technology Research and Development, 2011, 59, 399-424.	2.8	22
32	Objects, Entities, Behaviors, and Interactions: A Typology of Student-Constructed Computer-Based Models of Physical Phenomena. Journal of Educational Computing Research, 2011, 44, 173-201.	5.5	20
33	Developments in Inquiry Learning. , 2009, , 21-37.		19
34	Examining Studentsâ€™ Actions While Experimenting with a Blended Combination of Physical Manipulatives and Virtual Manipulatives in Physics. , 2018, , 257-278.		13
35	Inquiryâ€based learning and retrospective action: Problematizing student work in a computerâ€supported learning environment. Journal of Computer Assisted Learning, 2020, 36, 12-28.	5.1	12
36	Blending Physical and Virtual Manipulatives in Physics Laboratory Experimentation. Contributions From Science Education Research, 2014, , 419-433.	0.5	10

#	Article	IF	Citations
37	Children's perceptions of the factors that led to their enrolment in advanced, middle-school science programmes. International Journal of Science Education, 2020, 42, 1915-1939.	1.9	9
38	Examining how studentsâ€™ knowledge of the subject domain affects their process of modeling in a computer programming environment. Journal of Computers in Education, 2015, 2, 251-282.	8.3	6
39	Model-Based Inquiry in Computer-Supported Learning Environments: The Case of Go-Lab. , 2018, , 241-268.		6
40	Toward an Epistemology of Modeling-Based Learning in Early Science Education. Models and Modeling in Science Education, 2019, , 237-256.	0.6	5
41	Design and Evaluation of a Smart Device Science Lesson to Improve Studentsâ€™ Inquiry Skills. Lecture Notes in Computer Science, 2017, , 23-32.	1.3	4
42	Using Virtual Labs in an Inquiry Context. Advances in Educational Technologies and Instructional Design Book Series, 2017, , 58-83.	0.2	4
43	A survey on the usage of online labs in science education: Challenges and implications. , 2015, , .		3
44	The role of research in using technology to enhance learning in science. Educational Research and Evaluation, 2005, 11, 509-511.	1.6	0
45	How much support do students need when formulating hypotheses in a computer-supported inquiry learning environment: The case of a hypothesis formulation software scaffold. , 2017, , .		0
46	The Impact of an Experiment Design Software Scaffold on Students' Conceptual Understanding and Inquiry Skills. , 2018, , .		0
47	How many words are enough? Investigating the effect of different configurations of a software scaffold for formulating scientific hypotheses in inquiry-oriented contexts. Instructional Science, 0, , 1.	2.0	0