

Konstadina Dalacosta

Photo

Secondary Education Chemistry Teacher

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Google scholar: <https://scholar.google.com/citations?user=Jg6B334AAAAJ&hl=el&oi=sr>

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EDUCATION

BA in Chemistry - Department of Chemistry, Aristotle University of Thessaloniki

M.Sc. from the Interuniversity Master's Program "Chemistry Teaching Chemistry Didactics and New Educational Technologies", Department of Chemistry, National and Kapodistrian University of Athens

PhD from the School of Chemical Engineering, National Technical University of Athens, "Pedagogical and Didactic Utilization of Cartoons in the Teaching of Sciences", ND 17963 (EKT).

RESEARCH FIELDS

Building modern educational interactive materials with HTML , HTML5, Jason

Development and construction of educational multimedia applications with 3D graphics.

Development of integrated training packages.

Specialization and utilization of digital information and communication technologies in education

Innovation in distance education: pedagogical and technological applications

Basic principles of designing and building multimedia applications.

Contribution of multimedia to the learning process through the study of the parameters that influence it.

Visualization - visual literacy - visual literacy - visual representations - visual spatial learning - mental models

Cartoon-comic multimedia applications.

EDUCATIONAL EXPERIENCE

GRADUATE COURSES

SCHOOL OF CHEMICAL ENGINEERING, NTUA,

DIXHNET-EAA, Courses: Application of new educational technologies in educational practice I

Application of new educational technologies in educational practice II

HELLENIC OPEN UNIVERSITY, Education and Technologies in distance teaching and learning systems – Educational Sciences (ETA)

Courses: ETA51 Innovation in distance education: pedagogical and technological applications, ETA62 Digital media in education and communication

DISCRIMINATIONS / SCHOLARSHIPS

Elaboration of Postdoctoral research, with a grant from IKY (2017-2019), at NTUA, on "Practices and strategies of using educational interactive cartoons for the reconstruction of scientific knowledge in the course of Chemistry in Higher Education", "Strengthening of Postdoctoral Researchers" - MIS 5001552 of the OP " Human Resource Development, Education and Lifelong Learning" of the NSRF (2014-2020

SELECTED PUBLICATIONS (link OF PUBLICATIONS)

1. Dalacosta, K., Kamariotaki-Paparrigopoulou, M., Palyvos, J.A., & Spyrellis, N. (2009). Multimedia application with animated cartoons for teaching science in elementary education, *Computers & Education*, 52 (4), 741-748. Online ISSN: 1873-782X, Print ISSN: 0360-1315 doi: 10.1016/j.compedu.2008.11.018
2. Dalacosta, K., Kamariotaki-Paparrigopoulou, M., Pavlatou, E.A. (2011). Can we assess pupil's science knowledge with animated cartoons? *Procedia - Social and Behavioral Sciences*, 15, 3272-3276. ISSN: 1877-0428 doi: 10.1016/j.sbspro.2011.04.284
3. Dalacosta, K., & Pavlatou, E.A. (2018). Usability evaluation of 3-D visualizations augmented by cartoons for teaching solids and crystal structures in chemical engineering. *New Trends and Issues Proceedings on Humanities and Social Sciences*, 5(4), 83–89, ISSN 2421-8030, <https://doi.org/10.18844/prosoc.v5i4.3707>
4. Dalacosta, K., & Pavlatou, E.A. (2020). Using cartoons agents and 3D visualizations based on HTML5 for improving learning in crystal structures in engineers. *Computers Applications in Engineering Education*, 28(1), 5–16. Online ISSN:1099-0542, doi: 10.1002/cae.22169
5. Papadimitropoulos, N., Dalacosta, K. & Pavlatou, E.A. (2021). Teaching Chemistry with Arduino Experiments in a Mixed Virtual-Physical Learning Environment. *Journal of Science Education and Technology* (2021), 1573-1839. Electronic ISSN 1573-1839, Print ISSN 1059-0145, <https://doi.org/10.1007/s10956-020-09899-5>
6. K. Dalacosta, E.A. Pavlatou "Learning chemistry with 3d visualizations employing cartoons agents in higher education", 10th annual International Conference of Education, Research and Innovation (ICERI2017), Seville (Spain) 16th-18th November 2017, p. 3318-3325, ISBN: 978-84-697-6957-7 / ISSN: 2340-1095, doi:10.21125/iceri.2017.0914
7. K. Dalacosta, E.A. Pavlatou "Using educational strategies and techniques based on interactive cartoons, animations and 3d visualizations to rebuild scientific knowledge in chemistry in higher education", 11th Annual International Conference of Education, Research and Innovation (ICERI2018), Seville (Spain) 12th-14th November 2018, p. 10529-10535, ISBN: 978-84-09-05948-5, ISSN: 2340-1095, doi:10.21125/iceri.2018.0986
8. N. Papadimitropoulos, K. Dalacosta, E. Pavlatou "Introducing "makers" movement in a formal chemistry class", 12th International Conference Of Education, Research And Innovation (ICERI2019), 11th-13th November 2019, Seville, Spain, p. 7881-7886, ISBN: 978-84-09-14755-7. doi: 10.21125/iceri.2019.1865
9. K. Dalacosta, E. Pavlatou "Using animations with 3D visualizations, for teaching the concepts of solids and their crystal structures, in Higher Education" 9th International Conference on Open and Distance Education, Athens November 24-26 2017, Vol. 9, No. 6B (2017), pp. 205-212, ISBN: 978-618-5335-01-4, <http://dx.doi.org/10.12681/icodl.1093>