Vol. 15, No. 2, 2016

ISSN 1648-3898







THE INTERNATIONAL JOURNAL OF THE SCIENTIFIC METHODICAL CENTRE "SCIENTIA EDUCOLOGICA"

Journal of Baltic Science Education



Editorial Board

Editor-in-Chief

Prof., Dr. Vincentas Lamanauskas Siauliai University, Lithuania

Deputy Editor-in-Chief

Prof., Dr. Andris Broks University of Latvia, Latvia

Deputy Editor-in-Chief

Prof., Dr. Miia Rannikmäe University of Tartu, Estonia

Executive Secretary

Dr. Laima Railienė Scientific Methodical Center "Scientia Educologica", Lithuania

Editors:

Prof., Dr. Boris Aberšek University of Maribor, Slovenia Prof., Dr. Agnaldo Arroio University of Sao Paulo, Brazil

Prof., Dr. Martin Bilek University of Hradec Králové, Czech Republic

Dr. Paolo Bussotti
University of Udine, Italy
Dr. Bulent Cavas
Dokuz Eylul University, Turkey
Prof., Dr. Hana Čtrnáctová
Charles University, Czech Republic
Dr. Peter Demkanin
Comenius University, Slovakia

Dr. André du Plessis

Nelson Mandela Metropolitan University, South Africa
Riga Teacher Training and Educational Management

Prof., Dr. Jānis Gedrovics Academy, Latvia

Prof., Dr. Peter Heering University of Flensburg, Germany Prof., Dr. Jack Holbrook University of Tartu, Estonia

Prof., Dr. Ryszard M. Janiuk Maria Curie Sklodowska University, Poland

Dr. Milan Kubiatko University of Zilina, Slovakia

Dr. Todar Lakhvich Belarusian State Medical University, Republic of Belarus

Prof., Dr. Jari Lavonen University of Helsinki, Finland

Dr. Rita Makarskaitė-Petkevičienė Lithuanian University of Educational Sciences, Lithuania

Prof., Dr. Aadu Ott Göteborg University, Sweden
Dr. Paul Pace Malta University, Malta
Prof., Dr. Valfrids Paškevičs Daugavpils University, Latvia
Prof., Dr. Jongwon Park Chonnam National University, Korea

Dr. Raffaele Pisano Lille 1 Science and Technology University, France

Dr. Pavol Prokop Institute of Zoology, Bratislava, Slovakia

Dr. Alona Rauckienė-Michaelsson Lithuanian University of Educational Sciences, Lithuania

Prof., Dr. Heimo Saarikko Helsinki University, Finland Dr. Uladzimir K. Slabin University of Oregon, USA

Prof., Dr. Valery P. Solomin Herzen State Pedagogical University of Russia, Russia

Prof., Dr. Borislav V. Toshev

Dr. Georgios Tsaparlis

Dr. Muhammet Usak

Sofia University, Bulgaria

University of Ioannina, Greece

Gazi University, Turkey

A scientific journal JBSE issued by the SMC *Scientia Educologica* in cooperation with *Scientia Socialis*, Lithuania, emphasizes theoretical, experimental and methodical studies in the field of science education. JBSE is an international academic journal. In order to maintain the high standards appropriate to such a journal, all contributions received are submitted for anonymous review by two experts, additionally to review by the Editor. The decision of the Editor on the acceptance of articles is final and no correspondence can be entered into on reasons for rejection of a submitted contribution.

Published since 2002

The journal is published bimonthly.
IF-0.226 (2010), 0.425 (2011), 0.444 (2012), 0.481 (2013), 0.448 (2014).
5-Year IF: 0.412.

Address:

Scientific Methodical Center "Scientia Educologica" Donelaičio Street 29, LT-78115 Siauliai, Lithuania

E-mail: mail.jbse@gmail.com Phone: +370 687 95668

Home page: http://www.scientiasocialis.lt/jbse/

ISSN 1648-3898

© Scientific Methodical Center "Scientia Educologica", Lithuania, The Associated Member of Lithuanian Scientific Society, European Society for the History of Science (ESHS) and ICASE