

Vol. 17, No. 3, 2018

ISSN 1648-3898 /Print/, ISSN 2538-7138 /Online/



JOURNAL
OF BALTIC
SCIENCE
EDUCATION

Journal of Baltic Science Education



THE INTERNATIONAL JOURNAL OF THE SCIENTIA SOCIALIS Ltd. & SMC "SCIENTIA EDUCOLOGICA"

Vol.17, No.3, 2018

ISSN 1648-3898 /Print/

ISSN 2538-7138 /Online/

Journal of Baltic Science Education



JOURNAL
OF • BALTIC
SCIENCE
EDUCATION

The International Journal of the Scientia Socialis Ltd., & SMC "Scientia Educologica"

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 SMC "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 Charles University, Czech Republic
Dr. Paolo Bussotti University of Udine, Italy
Prof., 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 University, South Africa
Prof., Dr. Peter Heering University of Flensburg, Germany
Prof., Dr. Jack Holbrook University of Tartu, Estonia
Prof., Dr. Ryszard M. Janiuk Maria Curie Skłodowska University, Poland
Dr. Milan Kubiato University of Zilina, Slovakia
Dr. Todor Lakhvich Belarusian State Medical University, Republic of Belarus
Prof., Dr. Jari Lavonen University of Helsinki, Finland
Prof., Dr. Rita Makarskaitė-Petkevičienė Lithuanian University of Educational Sciences, Lithuania
Prof., Dr. Aadu Ott Göteborg University, Sweden
Prof., Dr. Paul Pace Malta University, Malta
Prof., Dr. Valfrids Paškevičs Daugavpils University, Latvia
Prof., Dr. Jongwon Park Chonnam National University, Korea
Prof., Dr. Raffaele Pisano Lille 3 University, France
Dr. Pavol Prokop Trnava University, Slovakia
Prof., Dr. Konstantinos Ravanis University of Patras, Greece
Dr. Alona Rauckienė-Michaelsson Klaipėda University, Lithuania
Prof., Dr. Heimo Saarikko Helsinki University, Finland
Dr. Hae-Ae Seo Pusan National University, Korea
Dr. Uladzimir K. Slabin University of Oregon, USA
Prof., Dr. Borislav V. Toshev Sofia University, Bulgaria
Dr. Georgios Tsapralis University of Ioannina, Greece
Dr. Muhammet Usak Science and Medical Education Research Center, Turkey

A scientific journal JBSE issued by the *Scientia Socialis Ltd.*, in cooperation with SMC *Scientia Educologica*, 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: 0.479 (2016)

H Index: 10 (2016)

SJR: 0.326 (2017)

ICDS: 10.7 (2017)

ICV: 143.26 (2015)

Address:

Scientia Socialis, Ltd.

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 (Print)

ISSN 2538-7138 (Online)

© Scientia Socialis Ltd., Lithuania, 2018

The articles appearing in this journal are indexed/abstracted in *British Education Index* (<http://www.leeds.ac.uk/bei/bei.htm>), *Copernicus Index* (<http://journals.indexcopernicus.com>), *The Asian Education Index* (http://www.asian-education-index.com/sciences_index.php), *EBSCO: Academic Search Premier* (<http://search.ebscohost.com>), *Social Scisearch (Thomson Reuters)* (<http://science.thomsonreuters.com/index.html>), *Journal Citation Reports / Social Sciences Edition (Thomson Reuters)* (http://thomsonreuters.com/products_services/scientific/Journal_Citation_Reports), and *SCOPUS* (<http://www.scopus.com>)