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From the Editor

Dear readers of RIGEO,

Welcome to the second issue of Review of International Geographical Education-RIGEO for 2020. This is the twenty-eight issue (Volume 10, Issue 2) of the RIGEO since 2011. In this issue we collected ten articles

First paper is entitled "Using Four-Tier Diagnostic Tests to Understand the Conceptions Held by Pre-Service Primary School Teachers about Sea Pollutant Migration" written by Wahyu SOPANDI and Rendi Restiana SUKARDI from Indonesia. This study aims to identify the conceptions held by pre-service primary school teachers about both sea currents and sea pollutant migration. The study also aims to identify whether pre-service primary school teachers see a relationship occurring between those conceptions. The study involved 147 pre-service primary school teachers from one of Indonesia's teacher training institutions. Four-tier diagnostic tests were used to gather data about the conceptions of pre-service primary teachers. The data were interpreted and analyzed in a descriptive quantitative method. The results showed that pre-service primary school teachers' conceptions about sea currents and sea pollutant migration were mostly in the category of 'misconception' and 'have no conception'. The correlation test about the ability of pre-service primary school teachers to explain the concepts of and relationships between sea currents and sea pollutant migration was also not significant. The results of this study indicate a need to improve the quality of teaching and learning for pre-service primary school teachers about convection by linking it to sea currents and sea pollutant migration.

Second paper of this issue is from Turkey entitled "A Foundational Perspective for Spatial Thinking in Relation to Social Studies Curriculum and Middle-School Textbooks in Turkey" written by Sezgin ELBAY. This study aims to analyze the coordination that exists between curriculum and textbooks around spatial thinking. To achieve the aims of the current study, the technique of document analysis technique occurs through examination of Social Studies Curriculum and middle-school textbooks. By the end of this research it was detected that in the 5th grade, the total number of opportunities for students to gain or develop the skills of spatial thinking was 8, and the total number of units in the textbook about spatial thinking was 12; in the 6th grade, the total number of opportunities for students to gain or develop the skills of spatial thinking was 7, and the total number of units in textbook about spatial thinking was 12; and finally, in the 7th grade, the total number of opportunities for students to gain or develop the skills of spatial thinking was 3, and the total number of units in textbook about spatial thinking was 5. Based on these results it can be argued that in Turkey there

is not a full coordination or alignment between the 2018 Social Studies curriculum and relevant textbooks about spatial thinking.

Third article is entitled "Youth Climate Change Mitigation Practices and Adaptation in Malacca State, Malaysia" written by Nasir NAYAN, Mohmadisa HASHIM, Hanifah MAHAT, Yazid SALEH and Saiyidatina Balkhis NORKHAIDI from Malaysia. This article aims to build a model of climate change mitigation practices and adaptation among youth in Malaysia, especially in the historical state of Malacca. A total of 400 youth respondents residing in the state of Malacca were selected through a simple random sampling process. Among the sub-constructs studied are sustainable development, environmental conservation, natural resources and effective involvement. The current study illustrates how Malaccan youth practice mitigation knowledge in the era of climate change, and how they say they will adapt to the effect of climate change.

The fourth paper of this issue is about "Using WebGIS Platforms and Inquiry-based Activities to Teach about World Political Map and World Population" written by Stela CSACHOVÁ from Slovakia. In Slovakia, a national project IT Academy – the education for the 21st century – was launched to promote student interest in science, mathematics and informatics across secondary education; and to also prepare students for the digital age. However, digital advancements have not been reflected in the teaching and learning of geography. Therefore, based on such an assumption, the aim of the current study is to encourage Geography students to acquire knowledge and develop skills through the purposeful use and implementation of geospatial technologies. The paper presents learning activities about World Political Map and World Population for secondary school students who are studying Geography, which are designed to make Geography lessons more inquiry-based with real-life application. The activities were piloted and evaluated by Geography teachers all over Slovakia. In conclusion, the statements from teachers confirm the project is relevant for gradual reform of geography education in our country.

The fifth paper of this issue is about "Disaster Awareness and Preparedness of Barrio Community in Zambales, Philippines: Creating a Baseline for Curricular Integration and Extension Program" written by Danilo V. ROGAYAN Jr., Lea F. DOLLETE from Philippines. This cross-sectional descriptive survey research determines the extent of disaster awareness and preparedness of the barrio or barangay community from the five southern municipalities of Zambales, Philippines. A total of 480 residents responded to the study. Results revealed that a majority of respondents were moderately aware about the different disasters occurring in the community. They are very aware about a typhoon whilst being moderately aware about a

tsunami and storm surge. In terms of hazard level, respondents perceived a typhoon to be 'very destructive', whilst they understood a tsunami and storm surge to be 'strong'. The barrio community often practice disaster preparedness for earthquakes, strong typhoons, landslides, fire, flood and volcanic eruptions. Amongst residents of the barrios, a moderate correlation exists ($r=0.449$) between their levels of disaster awareness and disaster preparedness. The results of this study provide a baseline information to use in decisions about the integration of disaster science and management in the curriculum at basic and higher education levels. Moreover, the results of this study also provided insights into the crafting of a community extension program to be spearheaded by the university. Such a program accentuates the need for massive dissemination of information about disasters for local communities so they become more aware about the causes and consequences of disasters. The proposed curriculum integration and extension program may inform practitioners and policy makers in making sound decisions regarding disaster risk reduction and mitigation strategies.

The sixth paper of this issue is about "The Effect of a Textbook Preparation Process Supported by Instructional Technology Tools on the TPACK Self-Confidence levels of Prospective Social Studies Teachers" written by Fatma TORUN from Turkey. The aim of this study is to determine the effect of a textbook preparation process supported by instructional technology tools on the TPACK (Technological Pedagogical Content Knowledge) self-confidence level of prospective Social Studies teachers'. The research was carried out using a sequential descriptive design with a mixed method design. Quantitative data were collected before and after the implementation process and the qualitative data were collected after the implementation process. A total of 53 prospective Social Studies teachers, from a public university in Turkey, participated in the research. The results of the analyses showed there were statistically significant differences between pre-test and post-test scores in the levels of TPACK self confidence amongst prospective Social Studies teachers. The self-confidence scores were in favor of the post-test. Furthermore, while prospective teachers have created negative metaphors about their TPACK self-confidence before the implementation process, they created more positive metaphors after the implementation process. According to the results of the BLOB tree self-assessment, it was revealed that the TPACK self-confidence levels increased amongst the prospective Social Studies teacher participant group.

The seventh paper of this issue is about "Using the 'New Age Atlantis' Case Study for Global Education Components of Geography Lessons across Lower Secondary Schools in Czechia" written by Petra KARVÁNKOVÁ, Dagmar POPJAKOVÁ and Tatiana MINTÁLOVÁ. The main intent of this article is to share an example of good practice about the use of this case study in geography lessons in Czechia. The aim of the study was twofold: to develop

an understanding about how plastics contribute to ocean pollution, as a serious and current ecological topic in Global Education; as well as to show how the characteristics and movement of ocean water are related to the topic of ocean pollution. The main research goal was to study how pupils were able to put their skills and knowledge in practice by fulfilling the objective of the teaching activity – to understand global ocean pollution. The teaching activity is based on methods which develop principles of critical thinking, learning by living, brainstorming, discussion, and group teaching. The teaching activity also allows for cross-curricular links to occur between school geography and other subjects including biology, physics, civic education, ecological education, and personal and social education. The teaching activities for the 'New Age Atlantis' case study is aimed at pupils aged between 12 to 15 years. The case study results confirm that as pupils collaborate and communicate with their peers and teachers, they learn to critically accept the opinions of others and, at the same time, to defend their own opinions. All of the pupils were able to understand and recognize the problem at hand.

The eighth paper of this issue is about "Academic Motivation Levels of Secondary School Students and Their Attitudes towards a Social Studies Course" written by Melike FAİZ and Emine KARASU AVCI from Turkey. The present study aims to reveal the motivation levels of secondary school students and their attitudes towards a Social Studies course. Four hundred and forty-three secondary school students participated in the quantitative part of the study, while forty-five secondary school students participated in the qualitative part of the study. The results of the quantitative section are given in two separate parts: a motivation scale, and an attitude scale. A significant difference was observed in the introjected regulation levels of male secondary school students. The scores for identified regulation and motivation were in favor of female students. There was no difference in the motivation scores according to the socio-economic levels of the students. However, the motivation levels of the students decreased as the grade level increased. The attitudes of participants towards the Social Studies course did not differ according to both gender and grade level of the participants. According to the school variable, a difference was observed between schools with a low socio-economic status and those with high socio-economic status. The qualitative data revealed a majority of students had positive attitudes towards the Social Studies course. Furthermore, the factors that enhance student motivation towards the Social Studies course were found to be related to the study of History, having an interest in the course, and the way the course is taught.

The ninth paper of this issue is about "Factors of Critical Spatial Thinking for a Geography Metacognition Assessment in Indonesian Senior High Schools" written by Muhammad NURSA'BAN, Kumaidi KUMAI and

Mukminan MUKMINAN from Indonesia. This study aims to develop an understanding about such factors by using a structural equation model to generate a comprehensive and accurate assessment instrument for metacognition in geography. The study is a research and development project for a Thesis. The current research involves 595 participants, consisting of experts and practitioners from eight representative Senior High Schools in Indonesia. The study occurred between August 2017 and February 2019. The results from a confirmatory factor analysis generated 15 indicators for three dimensions of Critical Spatial Thinking. The three dimensions are concept comprehension, concept application, and creativity in producing ideas; and they are used to generate an assessment for metacognition in geography. The indicators involve concept application, location, distance, approach, equation, disaster mitigation, concept map, interaction, map instrument, aura, region, hierarchy, pattern, spatial association, and inquiry. The factors were assessed by nine experts and obtained 0.85 on the Aiken validity index. A chi-square of 330.47, $df = 90$, $p\text{-value} = 0.000$, and Root Mean Square Error of Approximation = 0.071, $t = 4.78$, and GFI = 1.96 in the significance level of 5%, proves the items fulfil both the analysis and construct dimensions, and also have a significant influence on the dimensions and factors of metacognition.

The tenth paper of this issue is about "Physical Geography Education: The Postgraduate Research Trends in Turkey" written by Öznur YAZICI from Turkey. The field of research in physical geography relates to subjects such as place-shaping, climatic events, soil formation, vegetation development, the water cycle, and the nature and use of natural resources including underground mining processes. In order for humans to survive and facilitate their daily lives, they must have sufficient knowledge about many physical events taking place on planet Earth. In physical geographical education, various scientific research projects are carried out to bring rigor to the subject and the teaching of related concepts. Such projects include postgraduate Thesis studies. In this research, an examination of the status and general trends for postgraduate Theses occur in relation to physical geography education in Turkey. The current study is a mixed method design and an evaluation of the theses occur through a document review. The theses are retrieved from the database of the National Thesis Center of the Council of Higher Education Institution. A descriptive analysis and bibliometric study on the theses aim to reveal the progress in physical geography education. Results from the research show the most common type of graduate Thesis includes writing about the subject, university, year of admission, institute, writing language, sample, study group/sample size, method/research model, data collection tool, data analysis technique/analysis method, research subject and the subject of physical geography, and the level of instruction/target audience. In response to the

less frequently covered topics and methods, suggestions are made for future research and investigation to occur at the level of postgraduate studies.

This issue is closed with a book review by Emilia SARNO from Italy, entitled "The methodological proposal of the Italian nineteenth-century geographer Giuseppe De Luca: The passage from the simple to the complex" which is about an Italian scholar and geographer Giuseppe De Luca (1823-1895).

Hope to meet you in next issue of 2020.

Prof. Dr. Eyüp Artvinli

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