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The following names -RIGEO's reviewers for Volume 10 - represent the foundation of the peer-review process. The Review of International Geographical Education Online editorial team thanks to all our reviewers, not just those whose guidance shaped the articles that appears in this volume, but also those who counseled us on articles needing substantial revision or even rejection. The reviews were timely, constructive, and represent a substantial time commitment on behalf of submitting authors. Thank you for your effort and spend your valuable time on behalf of RIGEO.

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From the Editor

Dear readers of RIGEO,

Welcome to the third issue of Review of International Geographical Education-RIGEO for 2020. This is the thirtieth issue (Volume 10, Issue 4) of the RIGEO since 2011. In this issue we collected ten articles and one book review for you.

First paper is entitled “How Do Students Experience a Deprived Urban Area in Berlin? Empirical Reconstruction of Students’ Orientations” written by Laura LUBER, Janis FÖGELE and Rainer MEHREN from Germany. This paper describes the findings from the implementation of subject-matter teaching and learning via fieldwork in a deprived area (Kottbusser Tor) of Berlin. On the other hand, the authors focus on the explicit and implicit knowledge (which we call orientations) of the students concerning this fieldwork. In a problem-oriented approach, according to the model of a social city, students develop a concept about how to renew the deprived area of Berlin. They gain a variety of new experiences, some of which raise ethical questions. Autonomous group discussions with various school classes in the age group of 14 to 16 (n=30) were carried out after the fieldwork. The documentary method was used for data analysis which resulted in a typology of students. Concerning the orientations of the students, two excluding types of students (marginalizing type & distancing type) and two including types (integrating type & normalizing type) could be reconstructed. In addition to the benefit of the typology presented in this paper becoming an impulse for students to engage in self-reflection, the typology can also serve as a diagnostic tool for teachers to grasp learning conditions. Furthermore, an understanding also arises about students’ orientations to support the conceptualization of fieldwork in terms of practical handling and necessary measures for its use.

Second paper of this issue is from Slovakia entitled “Implementation of Inquiry-Based Education in Geography Teaching—Findings about Teachers’ Attitudes” written by Ivana TOMČÍKOVÁ. In this study, author argues that young people's interest in scientific and technical subjects, including geography, has been declining for a long time. According to the European Commission, the most important reason for the decline in interest is the way these subjects are taught in primary and secondary schools. As a result, numerous projects to support inquiry-based methods have been launched in recent years and significant changes have been made to the national curriculum in many of the European countries. Geography as a school subject, due to its multidisciplinary nature, provides options to make lessons more attractive and increases students’ motivation to learn by using practical research during lessons. This case study presents the results of a questionnaire survey that was

conducted among geography teachers in Slovakia. The aim of the study was to measure the attitude of Slovak teachers, students and society towards Inquiry-based Education (IBE). Based on the results, the current position and degree of implementation of IBE in Slovak schools were estimated. It was determined that the implementation of IBE in teaching is not an easy task for teachers. To implement IBE successfully requires compliance with many elements, such as improvements in teacher training, curriculum changes and pupil's assessment.

Third article is entitled "Teacher Candidates' Views about Land Art in Geographical Education" written by Cengiz KAYACILAR and Ayten KARACA from Turkey. This study aims to present the views of teacher candidates about the use of Land Art in geographical education, which is an aesthetic application of spatial knowledge. The main reasons for the birth of this research relate to the lack of studies conducted on the use of Land Art practices in the educational environment, together with the idea that its use will contribute to geographical education. In the 2018–2019 academic year, during Spring semester, 23 teacher candidates participated in the study. This working group took the second-grade mountain-geography elective course for a Social Studies teaching program at a Faculty of Education in a Turkish university. This research, in which teacher candidates worked in five separate groups to create a land art product, was conducted in the field at Niğde Aladağlar National Park-Emli Valley. At the end of the fieldwork, opinions of the teacher candidates about the land art activity were obtained through inviting their responses to an open-ended questionnaire. Descriptive analysis of the survey data reveal five separate categories including: 'the status of participant knowledge about land art'; 'land art, and formats able to make us of land art in the teaching of Geography in Social Studies'; 'association of art with other disciplines'; 'contribution of Land Art to the teaching of Geography in Social Studies'; and 'Land Art that participants choose as an activity in their professional lives outside of school'. At the end of the field applications, each group filled out the Land Art Product Evaluation Form as the second data collection tool of the research. As a result of the findings obtained, it was observed for the first time that teacher candidates had knowledge about Land Art and its effectiveness in teaching. In the study, it was found that teacher candidates associated Land Art activities with nine courses: Geography; Art and aesthetics; History; Science; Anthropology; Social Studies; Sociology; Archaeology; and Philosophy. Based on results from the second data collection tool, teacher candidates evaluated Land Art activities as 'very useful' and 'useful' in educational environments. At the end of the study, it was observed that all teacher candidates would prefer Land Art activities in their professional lives for various reasons. such as providing permanent learning, providing a fun learning environment, and making the student an active and willing learner.

The fourth paper of this issue is about “Students’ Perceptions about the Use of Minimalist Robotic Games in Geography Education” written by Soon Singh BIKAR, Sabariah SHARIF, Rosy TALIN, Balan RATHAKRISHNAN from Malaysia. This study was conducted to evaluate the perceptions of high school students who are using minimalist robotic games for teaching and learning activities in Geography. Qualitative research methods were used to collect the research data. In total there are 15 groups of students participating in the Science Technology Engineering and Mathematics (STEM) Education Carnival; each group consists of three to six members who have created a minimalist robot game for the subject of Science, Mathematics and Social Sciences. However, there are only two groups of students consisting of two male and four female students who created games for Geography. Therefore, a purposive sampling method was used to select students from these two groups. Six students who participated in the development of a minimalist robotics game for Geography in the STEM education carnival were selected and interviewed. Semi-structured interviews were conducted at the end of the carnival. The data analysis of the interview shows five out of six students had a very positive perception of using minimalist robotics in Geography education. In addition, this study also showed that the use of minimalist robotics in the teaching and learning of Geography also changed the interest and attitudes of students towards learning Geography. The application of minimalist robotics also enhances students’ intrinsic motivation to study Geography. The implications of this study suggest that minimalist robotics games are an alternative technology teacher can integrate into teaching and learning activities for Geography in schools to enhance students’ interest in learning about this subject.

The fifth paper of this issue is about “An Investigation of The Relationship Between Ecological and Materialistic Values of Turkish Teacher Candidates” written by Nevin ÖZDEMİR from Turkey. The purpose of this study is to examine whether there is a relationship between the materialistic and ecological values of prospective teachers. The study sample consists of 685 prospective teachers studying in a Faculty of Education at a university in northern Turkey. In the 2016-2017 academic year, prospective teachers who participated in this study were studying in first and last grade level of five different departments: Social Studies (n=115); Science (n=149); primary education (n=151); Mathematics (n=134); and pre-school teaching (n=136). A questionnaire including the New Ecological Paradigm Scale (NEPS), and the Material Values Scale (MVS) was used to gather data. The mean scores of both scales were based on the interpretation of the research findings, and the relationship between materialistic and environmental values of sample and variables such as gender, grade level, the field of teaching, and environmental

education were examined. The correlations among materialistic and environmental values and environmental education were also examined. The results of the study demonstrated that prospective teachers have high levels of eco-centric values and moderate levels of materialistic values; also, these values have significant relations with some of the variables. The findings indicated there were negative or positive weak correlations between some variables.

The sixth paper of this issue is about “Learning About Landslide Disaster Mitigation Based on a Role-Playing Method Assisted by the Disaster Education Pocket Book” written by Erni SUHARINI and Moh. Nasrul BAHARSYAH from Indonesia. The aim of this study is to describe the implementation of a role-playing learning method assisted by the disaster education pocket-book and to analyze its effectiveness. This research was conducted at SMAN 11 Semarang. The samples of this study were XI IPS 2 as the experimental class and XI IPS 3 as the control class. The variable of this research was the role-playing learning method assisted by the disaster education pocket-book. The sub-variables include teacher performance, learning outcomes, and students’ responses. The study found that implementation of the experimental class obtained teacher performance scores of 89 percent and control classes obtained teacher performance scores of 86 percent. Both scores were very good. The comparison of cognitive learning outcomes showed that disaster mitigation learning with a role-playing method and assisted by a pocket-book about disaster education was more effective than learning through lectures and discussion methods. Responses to a questionnaire showed an average score of 82.7 percent, stating that students were very interested in such learning. The results of this study indicate that disaster mitigation learning must be implemented with a method that involves active student participation and is also complemented by interesting learning materials such as the role-playing method assisted by use of a disaster education pocket book.

The seventh paper of this issue is about “Geographical Education in Primary School Curriculum in Turkey Between 1923-2018” written by Nihal YILDIZ YILMAZ and Ali MEYDAN from Turkey. This study aims to examine the change and transformation of geographical education in the Turkish primary school curriculum between 1923-2018. The research uses a qualitative document review method and a descriptive analysis process to analyze the data. Nine primary school programs created by the Ministry of National Education (MoNE) are identified as research documents. Dates of primary school curricula in Turkey between 1923-2018 are analyzed: 1924, 1926, 1936, 1948, 1962, 1968, 1997, 2005 and 2018. The 1924 Boys' Primary School curriculum is a continuation of the pre-republic program and geographical education was included in Grades three, four and five under the name “Geography”. The 1926

Primary School curriculum, and the 1936 Primary School curriculum, and the 1948 Primary School curriculum all include the name “Geography”. The 1962 Primary School curriculum includes geographical education as “Society and Country Studies” and “Science and Nature” in Grades Four and Five. The lesson information in the 1968 Primary School curriculum and also in 1997, 2005 and 2018 show geographical education as “Social Studies”, “Science (1968 and 1997)”, “Science and Technology” (2005) and “Science” (2018) for Grades Four and Five. From the 1926 Primary School curriculum to the 2018 Primary School curriculum, it is evident that geographical education occurs in Grades One, Two, and Three and Geography was included under the name of “life knowledge, which is a combination of Geography, History, Civics, Nature, and Science. It was determined the course hours differed from program. Purpose/objectives related to geographical education have gradually decreased. Given the importance of geographical education from the primary school level, achievements related to geography education can be increased.

The eighth paper of this issue is about “Interactive Geovisualizations (iGEO): A New Approach to Teaching and Learning Physical Geography” written by Ryan HEINTZMAN from USA. In this study students completing an introductory physical geography course used an interactive geovisualizations (iGEO) lab exercise centered around lightning in northern Arizona to investigate atmospheric processes. This iGEO looks and plays like a conventional videogame where the student controls an avatar in a 3D environment. This iGEO was inspired by moving the introductory physical geography courses online due to the ongoing university closures to “on-the-ground classes” related the COVID-19 pandemic. The goal of an iGEO rests in increasing motivation and encouraging active, engaged learning for students, many of whom are taking the course for required college credit. Most students expressed positive experiences with the new iGEO; the determining factors related to this experience centered around enjoyment, usability, and simplicity of the game. There was also a difference in student experience based on student academic majors. Students of non-geographic or science backgrounds had a lower experience rating than those who did have a geographic or science background. Overall, students preferred the iGEO lab over traditional lab coursework. This research led to a refined iGEO lab for lightning in northern Arizona and it was made available to all interested faculty via a public website, along with three other iGEO-based labs.

The ninth paper of this issue is about “The Social-Constructivist Concept of Space in a German Geography Education Context: Status-quo and Potential” written by Günther WEISS from Germany. This paper attempts to reason that social-constructivist spatial theory represents an essential approach for contemporary geography teaching. This approach is essential to show learners

how space contributes to the organization of society. By contrast, German geography didactics and teaching practice, which are examined closely here by means of a content analysis based on curricula, textbooks, and classroom material, show that social-constructivist approaches are underrepresented and limited to a light-weight version of space as construct. This contribution concludes with a plea to grant the concept of space as a social construct with greater central significance and potential in teaching practice.

The tenth paper of this issue is about “Relationship Between the Attitudes of Pre-school Teacher Candidates Towards Environmental Issues and their Self-Efficacy Beliefs About Environmental Education” written by Nagihan TANIK ÖNAL from Turkey. This study aims to determine the self-efficacy beliefs and attitudes of pre-school teacher candidates towards environmental education and to examine the relationship between these two variables. The research was conducted based on an exploratory sequential mixed-methods design. The participants of the study are 114 pre-school teacher candidates studying at a state university in the central Anatolia region during the 2019-2020 academic year. In the study, quantitative data was collected using the attitude scale towards environmental issues, and a self-efficacy scale for environmental education, while qualitative data was collected through semi-structured interviews with 35 teacher candidates. Quantitative data were analyzed in the SPSS program using statistical analyses suitable for research problems. Qualitative data were subjected to content analysis. As a result, it was found that the self-efficacy beliefs and attitudes of pre-school teacher candidates in environmental education were moderate. While these factors do not show a significant difference by gender, they show a significant difference compared to the variables of self-efficacy in taking previous courses related to environmental education and giving a course related to environmental education in the future. In addition, it has been found that there is a positive relationship between self-efficacy beliefs in environmental education and in attitudes towards environmental issues. The results obtained in the interviews are consistent with these results. As a result of the research, recommendations were made such as providing courses related to environmental education at all levels of education; and providing opportunities for pre-school teacher candidates to practice environmental education in the process of their university education.

This issue is closed with a book review by Professor David Lambert who is Emeritus Professor of Geography Education in UCL Institute of Education, London, United Kingdom. The book is entitled “Why Study Geography?” written by Alan Parkinson who is currently Senior Vice-President of the Geographical Association (President in 2021-22) in United Kingdom. Prof. Lambert emphasizes that the book is squarely aimed at the English-speaking world and

mainly the British educational diaspora. However, this book, concerning the study of geography, is of interest to the international field geography educationists, not least through the manner in which geography as a subject is described, but also through the detail of its sources describing geography and geographers in the work place, policy making and so on.

Hope to meet you in the first issue of 2021.

Prof. Dr. Eyüp Artvinli

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