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**From the Editor**

Dear readers of RIGEO,

Welcome to FIRST issue of Review of International Geographical Education Online-RIGEO for 2019. This is the twenty-fourth issue (Volume 9, Number 1) of the RIGEO since 2011.

**First paper** is entitled “Students’ Reasoning Processes While Constructing Causal Diagrams” written by Marjolein COX, Jan ELEN, An STEEGEN from Belgium. The use of causal diagrams to externalize the mental representation of a problem is recognized to be an important step in solving complex problems. In geography education several global challenges taught about in class are highly complex due to the interconnectedness of many causes and consequences. A systems thinking approach might be helpful to better understand these global challenges. Former studies have shown the effectiveness of concept maps and causal diagrams to foster students’ systems thinking. However, it is not always obvious for students to construct proper causal diagrams. In order to optimize teaching strategies concerning these complex systems in geography education, this study analyzes students’ cognitive strategies while constructing a causal diagram. We used task-based think-aloud interviews to study their cognitive strategies. Four different cognitive strategies were observed. The different types of cognitive strategies all resulted in an acceptable constructed causal diagram by the students. The presented insights are explorative, but it reveals the thinking processes that are mostly tacit and therefore has the potential to contribute to better teaching strategies. After all, if we know what processes novices go through while carrying out a complex skill, which are often taken for granted by experts, in this case geography teachers, we can raise awareness among teachers to explicitly take those processes into account while designing lessons.

**Second paper** of this issue is from Turkey entitled “A Qualitative Study on the Opinions of 7th Grade Students on Intangible Cultural Heritage” written by Davut GÜREL. The purpose of this study is to identify the opinions of 7th grade students at middle schools on the elements of intangible cultural heritage (ICH) and to reveal their levels of awareness on such elements. The study based on qualitative research method was carried out through qualitative research design. The study group consists of 13 students studying at a school at the city center of Bartın. Data of the study were obtained from focus group interviews held with students. The data obtained were analyzed through content analysis method by using MAXQDA 2018 qualitative data analysis software. Results of the analyzed data were interpreted with their frequencies and percentages shown by figures and tables. From the findings obtained under the study, it has been concluded that the students are able to correctly interpret the notion of intangible cultural heritage and distinguish it from the notion of tangible cultural heritage, that students’ awareness on local cultural values is higher than national cultural values, that students have a high interest in traditional children’s games, which is a significant part of the intangible cultural heritage, however those games are not



adequately experienced, that the survival of national values is dependent upon their discovery by the young generation, that settlement area, sex and age are major variables on the interest in cultural values, that society in general and family and educational institutions in particular have a quite significant function in development of young individuals' awareness on the conservation of national cultural values such as cultural and religious rituals, folk songs and tales etc., that technological developments cause young individuals to be alienated from national cultural values, that the conservation of such values is highly important for the existence of nations.

**Third article** is entitled "Geography Courses in the Identity Construction and Spatial Belonging Development of Turkish-origin Students Living in Germany" developed by İrem PAMUK, Cemil ÖZTÜRK, Hamza AKENGİN. The aim of this study is to find out the contributions of geography courses to the spatial belonging development and identity construction of Turkish-origin students from different types of schools located in North Rhine-Westphalia (Nordrhein-Westfalen) state in Germany. In this study, one of the qualitative research designs, namely phenomenology, will be employed. Phenomenology is the most suitable methodological tool for this study, as it enables us to focus on experiences, livings, thoughts, sense, and feelings of individuals. The study group was determined in accordance with purposive sampling. The data was collected through semi-structured interviews and analyzed with the "MAXQDA 11" qualitative data analysis software and categories were formed. According to the research results, Turkish-origin students are aware of the important role that geography courses take firstly in familiarizing with Germany, the country they live in. It was revealed that geography courses provide students with the sense of spatial belonging and help them to embrace the place they live in by creating a certain perception of place. In other words, Turkish-origin students feel that they are part of Germany because they feel that they belong to the place. The fact that they see Germany as their home country is one of the indicators of interiorizing the geography. For them, Germany is their home country whereas Turkey is their motherland. As their families' motherland concept is related to Turkey, they transmit the concept of motherland from their families to their social realities.

**The forth article** is entitled "A border is a Ban"-Students' Conceptual Understanding and Experiences of Europe's Borders and Boundaries" written by Sebastian SEIDEL, Alexandra BUDKE. In this paper, we examine the conceptual understanding and experiences that students in German secondary schools have of boundaries. For our research we conducted qualitative interviews and surveys (interviews n=20; surveys n=21) with children (aged 14-17) born both in Germany and with refugee backgrounds. We asked for the children's conceptual understanding of the emergence and function of boundaries and their personal encounters with them. We studied the results of these interviews using qualitative content analysis to learn more about the conceptual understanding and experiences of students. Our findings on the emergence of borders show that students have limited understanding of boundaries and differing spatial concepts that exist for them. We also observed interesting distinctions



between personal experiences of borders. The results may provide a base for further research and development in terms of conceptual-change-based methods for geography education on the topics of territories, borders and boundaries.

**The fifth paper** of this issue is about “Linking the Learning and Teaching Geography: The Gap between School and University in Turkey” written Niyazi KAYA. This study was carried out with the aim to determine the level of sufficiency of the geography teachers' education, which they received during their undergraduate education, in terms of their professional performance in the official secondary education institutions under the Ministry of National Education in Turkey. This study adopted the survey model and the relevant data was collected by using a descriptive approach. THESE data were collected from the actively-working geography teachers by using a data collection tool developed by the researcher with the modeling technique to be analyzed and interpreted. According to the results obtained from the collected data; it has been observed that the geography teachers did not consider the undergraduate education they received while carrying out their education activities and they did not have sufficient level in acquiring some of the fields that have to be given to the students. Undergraduate geography teacher programs need to be updated on a need-based basis by taking the opinions of all stakeholders, to be able to apply the geography curriculum effectively and effectively and to provide the geographic skills required by the 21st century to students. In addition, some suggestions can be made to the geography teachers who are currently working in the Ministry of National Education (MoNE) by developing application-based activities to meet the professional development needs in the areas they need.

**The sixth paper** of this issue is about “The Students' Behaviors at the Instructional Geocaching Applied in Problem-Based Environmental Education” written Rukiye ADANALI and Mete ALIM. Environmental and disaster consciousness of teachers are of great importance for disasters education. The teaching of some natural disasters of climate in the Environmental Problems course at an education faculty in Turkey was carried out with the Problem Based Learning (PBL) approach supported with Instructional Geocaching Game (IGG). Geocaching is an outdoor location based-digital game in which players hide a box and then share its coordinates online. Other players can find it with GPS. IGG is an educational game played with small student groups designed by teachers. This study aims to demonstrate how the IGG activities conducted outside of the classroom with the PBL approach are applied and IGG's outcomes. The instrumental case study design was utilized with a group of 19 geography prospective teachers whom were selected by convenience sampling method. The students' views on the IGG were determined by the open-ended questionnaire and their behaviors were determined by out-of-classroom observation forms. Student performances were evaluated through the IGG portfolio. Document analysis for survey and portfolio data; descriptive analysis for observations were done. The findings revealed that students' problem-solving skills increased and they learned to use GPS technology; IGG contributed to the development of environmental awareness and disaster awareness of

them by increasing motivation. In addition, some strategies for the practice of the game emerged. IGG facilitated students' PBL process and it was evaluated as a geography game by students. According to the results, the PBL-IGG approach is applicable in Geography and Environmental Problems courses.

**The seventh paper** of this issue is about “Evaluation of Geography Textbooks in Terms of Misconceptions about Climate Topic” written by Fisun BOZKURT. This descriptive study is centered on the representation of climate concepts in the geography textbook and academic books. The study mainly examined how the concepts, which were determined by considering the misconceptions in our previous studies, were presented in the 9th grade newly-published geography textbook and academic books. Also, the study identified, discussed and showed the ways in which the representation of climate concepts in the textbook might corroborate the students’ misconceptions. Secondly, the misconceptions were examined by comparing how they were presented in local and foreign academic books. In addition, appropriate corrections, explanations and visual materials were presented to explain the conceptions. The findings show that the misconceptions or deficiencies mentioned in our previous studies still persist in the newly published textbook and local academic books. It is believed that such a study can help solve the problems related to the misconceptions encountered in geography teaching, and that it can increase the geography teachers’, textbook writers’ and publishers’ awareness of the common misconceptions of the students about climate and thus it can shed light on the definitions and materials that can be used in describing these concepts.

**The eighth paper** of this issue is about “Viewpoints of Social Studies Teachers about Oral History Method” written by İlker DERE. The aim of this study was to reveal the viewpoints of social studies teachers regarding oral history method. The qualitative research approach was used to achieve this purpose. A total of 225 middle-school social studies teachers from various provinces of Turkey participated in the study. A standardized open-ended interview form comprising three sections was used to collect data. Data collected online and during face-to-face interviews were evaluated with content analysis method. At the end of the research, important results regarding the usage of oral history in social studies courses were obtained. First, it was observed that most of the social studies teachers were acquainted with the oral history method and that they learned about this method during their university education. Second, most of the teachers defined the method as an interesting and effective method that facilitates permanent learning. Third, they remarked that the oral history method presents first-hand information, develops historical thinking skills and ensures the establishment of a meaningful connection with society. In spite of this, the teachers who stated that they do not use this method in their courses mentioned some problems related to the school curriculum and oral history method. In the context of these results, it can be concluded that the oral history method has begun to gain popularity among social studies teachers despite some problems.

**The ninth paper** of this issue is about “Fourth Grade Students’ Cognitive Structures Regarding “Values”: Application of the Word Association Test” written by Nur Leman BALBAĞ, Mehmet Fatih KAYA. With the help of the Word Association Test (WAT), the present study aimed to reveal elementary school fourth grade students’ cognitive structures regarding the values to be taught in relation to the learning areas within the scope of the course of social studies. The participants in the study were elementary school fourth grade students. In the research process, seven values such as respect, tolerance, love, responsibility, solidarity, benevolence and patriotism, which were all determined as the values to be taught to the students within the scope of the curriculum of the elementary school fourth grade course of social studies, were presented to the students at the end of the teaching process. The students were asked to write down the words that they associated at once with the seven key concepts in 1-minute. The data collected were recorded in a table of frequencies including the key concepts and words, and in the light of the data in this frequency table, mind maps showing the students’ cognitive structures were formed. The results obtained via the examination of the connections and associations between the words and the key concepts in these mental maps demonstrated that the students produced the most words regarding the values of respect and tolerance and the least words regarding the value of solidarity. In addition, the students with a cut-off point of 50+ were found to associate the values of love, respect and tolerance with each other and the value of responsibility with the “job-duty”.

**The last paper** of this issue is about “Implementing Argumentation-Based Science Learning Approach in Social Studies: Academic Achievement and Students’ Views” written by Yavuz AKBAŞ, İbrahim Fevzi ŞAHİN, Elif MERAL. The purpose of this study was to investigate the effects of the argumentation-based science learning approach on students’ academic achievements and examine student views about use of this approach in social studies. We used a mixed methods research design to document changes as a result of an argumentation-based science learning approach implementation. The participants were 94 seventh grade students from three different classrooms of a middle school in Erzurum, Turkey. We developed the Population in our Country Academic Achievement Test to collect quantitative data before and after the implementation, and used a semi-structured interview form to collect quantitative data after the implementation. Using descriptive, one-way ANOVA, and multiple comparison Tukey test statistical data analysis methods, we analyzed the quantitative data. Then, we used content analysis method to analyze the qualitative data. Results of the quantitative data analysis showed that there was no statistically significant difference between academic achievements mean scores of the students in the experimental and control groups in the pre-test. However, after the implementation, there were statistically significant differences between groups indicating that academic achievement mean scores of students in the experimental group was statistically higher than those students in the control groups in the post-test. Results of the qualitative data analysis indicated the argumentation-based science learning approach activities helped students understand subjects better, facilitated their learning, provided permanent

learning opportunities, increased their interest and attitudes towards the course, and enhanced their success in social studies. These results suggested that implementing the argumentation-based science learning approach in social studies was effective in enhancing students' academic achievement and resulted in developing positive views of students about the approach.

This issue is closed with a book review by Paula OWENS, entitled "Spatial Citizenship Education: Citizenship through Geography" written by Euikyung E. SHIN & Sarah Witham BEDNARZ.

According to OWENS; Spatial Citizenship Education sets out to explore ways to engage with and promote citizenship through a deeper understanding of spatial and geographic perspectives. In doing this, the book has to define concepts concerning spatial citizenship and geography and explain how they are mutually supportive and relevant, before setting out some of the issues and barriers that constrain practice; identifying possible reasons for a deficiency in this regard; drawing on successful case studies of practice to illustrate what could be done, and make recommendations about ways forward. This is a lot for one book to tackle and this highly regarded set of authors have taken the task seriously.

Hope to meet you in next the issues of 2019.

**Prof. Dr. Eyüp Artvinli**

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