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Dear readers of RIGEO;

As the last issue of 2015 we would like to present five different articles in the fourteenth issue (Volume 5, Number 3) of the Review of International Geographical Education Online-RIGEO. This issue of RIGEO includes articles about geography textbooks, teacher education and climate change education in general.

First article entitled *A Comparison of Questions and Tasks in Geography Textbooks before and after Curriculum Reform in China* by Daihu YANG, Ziyang WANG and Di XU. This study investigates on the questions and tasks in geography textbooks written before and after the curriculum reform in China. The authors analysed five geography textbooks written before and after the curriculum reform have been quantitatively and qualitatively analysed and compared in terms of amount, learning outcomes and type. In their findings they argue that the questioning and tasking practices can be characterized as an increase in amount, more emphasis on the intermediate-order cognitive level of analysis, little concern for the affective and psychomotor abilities, and less diversity of types of questions and tasks. And they suggest that the amount, learning outcomes and types of questions and tasks in the geography textbooks need to be adjusted so as to better meet the aims of the curriculum reform.

Second article is from USA, entitled *Critical Intersections of Knowledge and Pedagogy: Why the Geographic Literacy of Preservice Elementary Teachers Matter?* written by Karen THOMAS-BROWN, Allison RICHARDS. The authors examine the geographic literacy of a group of preservice elementary (K-5) teachers in a mid-sized university located in America's Midwest Rust Belt. Authors aim to achieve three main aims using a geographic literacy survey. The first aim was to examine the approximate geographic literacy of the participants. The second aim was to determine how comfortable the participants were with teaching geography content in the future, and the third aim was to determine the extent to which preservice teachers demonstrated the ability and willingness to adopt a critical stance to spatial thinking in the future. From the geographic literacy survey, they found that many of the preservice teachers demonstrated adequate place-based and geographic knowledge. However, many of the participants also showed some deficits in spatial thinking skills, and in the application and contextualization of geospatial knowledge beyond map-based activities. The research also found that the participants expressed an overall discomfort with teaching geography materials in the future, this indicated their inadequate mastery of key geographic literacy skills.

Teresa SADOŃ-OSOWIECKA and Martin BLASZK from Poland focus on pre-service teacher education in third article. The author interprets comments made by student-teachers given during interviews, as well as notes written in their teaching practice journals, made during or completed shortly after their practices in school. The background to these interpretations are official documents (e.g. the Polish Standards for Teacher Education, the Polish National Curriculum) and theories of learning and teaching (constructivist vs behaviorist). The authors found that students' impressions show school to be a very formal organization, where the teacher-trainer decides on the

content of lessons, methods of learning and the course of lessons ("for the good of pupils"). In many cases too, the students only realize their teacher's ideas. Authors ask whether or not they will be able to provide innovative education if they cannot themselves attempt to implement their own ideas.

Fourth article is also about teacher education. The title of it *The "Universitisation" of Geography Teacher Training in Portugal: Reflecting on its Results and Weaknesses* written by Fernando ALEXANDRE and Manuela Malheiro FERREIRA. Authors emphasis that teacher education in Portugal became focused on outcomes, more than on processes, and its effects were increasingly disappointing as regards changing teachers' practices.

They also found that that current geography teacher training contributes to widen the gap between academic and school geography. Their paper intends to address two questions: (1) how did the 'universitisation' of teacher training affect teachers' involvement as regards the overall training process?; (2) how to explain the marginal results obtained by training as regards changing teachers' practices? From the data collected for this research through the content analysis of primary documents, databases and the results presented by various field researches, it seems possible to identify the main weaknesses that affect geography teacher training: (a) training programs fail to narrow the gap between theory and practice; and (b) training processes are unable to identify and take into account the experiences and the personal beliefs that shaped student teachers' knowledge before they enter training.

Last article is from Singapore for this issue. Chew-Hung CHANG and Liberty PASCUA researched secondary school students' alternative conceptions (ACs) of climate change and their resistance to instruction. They found that students confuse the Montreal with the Kyoto Protocol as the primary treaty aimed at curbing greenhouse gas emissions. Whereas there was significant improvement in students' understanding in the post-test, the distribution of responses for each of the ACs showed that the reduction in erroneous responses was not sufficient to reject the ACs fully. The authors recommend that instruction should move beyond patchwork pedagogy to a more explicit acknowledgement, incorporation and direct refutation of misconceived knowledge structures.

This issue of RIGEO includes a Book Review of Phil GERSMEHL study entitled *Teaching Geography*. Sarah Witham BEDNARZ from USA and Minori YUDA from Japan point out that Phil Gersmehl is the most unique, innovative, and influential geography educator in the United States. They review third edition of his famous book between educators and geography teachers in USA about teaching geography in USA. It is clear that that book is one of the most important book both teachers in practice and teacher educators in theory.

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**Reviewer List for Volume 5**

The following names -RIGEO's reviewers for Volume 5- represent the foundation of the peer-review process. The Review of International Geographical Education Online editorial team thanks all our reviewers, not just those whose guidance shaped the articles that appear 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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