Editorial

JTES Approaches to Sustainability: Current Practices and New Perspectives for a More Sustainable World

Greetings from the team of Editors-in-Chief of the *Journal of Teacher Education for Sustainability* (JTES). We express our gratitude to the authors and editorial board members for their valuable input and cooperation in making Issue 2, Volume 21. We wish you all a very good reading.

Since the end of 2015, responsibility for the development of the Journal has been entrusted to the UNESCO Chair on Interplay of Tradition and Innovation in ESD, which operates at Daugavpils University. Following this decision, a more focused effort has been made to improve the functioning of the JTES and integrate the JTES into the implementation of the tasks of the Global Action Program (GAP, 2015–2019). During this period, the popularity of JTES was growing. The official CiteScore of the Journal also changed during this period: from 0.64 in 2015 to 1.85 in 2019. Since 2016, the development of the JTES has been driven towards a stronger reflection on a specific topic. There was a need to select articles submitted according to the specific interests of the Journal: *The phenomenon of sustainability, sustainable education, sustainable development*, and a new need arose to provide consultations by editors and reviewers to authors who accepted the challenge of improving articles to the requirements of the Journal. This need positively influenced the development of the Journal. The consequences of these changes have also become visible: (1) a team of researchers (not yet called generations) is emerging who already recognize the idea of sustainability from different perspectives and see the need to incorporate it or look for ways to fit into it, combining with traditional research topics; (2) a more prevalent traditional view of the choice of scientific topics for conferences, doctoral theses, and articles presented in scientific journals is also becoming more visible. It shows a lack of interest in sustainability, a lack of clarity about the aims of the study in a broader perspective, a tendency to process the answers to any detailed question with methodologies that demonstrate the ability to use them but do not provide an answer to the research question, in fact. A year earlier, in Volume 20(2) of the JTES, in 2018, we published an article entitled “Science of Pedagogy: Theory of Educational Discipline and Practice” presented for discussion by Professor Irēna Žogla. It highlighted that “to foster understanding of pedagogy as a unique, well-structured science with its object of investigation, is not being explored by any other science” (Žogla, 2018: 31). Perhaps, in order to gain a more natural explanation and understanding of the phenomenon of sustainability, as well as to make the choice of the theoretical basis for studying the phenomenon of sustainability, the time has come for a broader and deeper re-evaluation of the role of pedagogical science from the perspective of contemporary science philosophy. This is particularly called for by the recognized unsustainable trend of global development and the emergence of the Anthropocene era, which has been identified through long-term research on the development of human–nature relations. Such a discussion would facilitate the development of relations between two phenomena – pedagogical science and educational science, and possibly it leads to illusion recognition that would allow understanding of the aforementioned lack of sustainability and the inappropriate choice

of research approaches and methods. From a particular perspective, this idea looks into the context of the future of education and the tasks of the new Decade for ESD beginning in 2020. Participation in the exploration of themes and methodological foundations initiated by the JTES paves the way for participation in the achievement of tasks of the next Decade, which will be addressed through scientific research and the resulting articles on improving the quality of education.

While preparing articles for publication, the JTES team has encountered the ease with which authors find or accept consultants' suggestions on using the idea of sustainability to broaden their specific research topics from obvious peace-meal approaches to more holistic research frameworks. This collaboration resembles, by its very nature, a structure of action research between the JTES and authors, and a team of authors has been formed during the GAP years who have somehow accepted or recognized the nature and relevance of educational research for ESD. These authors can contribute to the future development of the Journal, as the development of the JTES in the GAP phase was conceived as a step-by-step establishment of global networking mechanism initiated by the JTES and the Baltic and Black Sea Circle Consortium in Educational Research (BBCC). Annual Journal conferences have become the basis for this experience (16 international conferences have been held), which have been valuable for participants and the development of JTES. The conferences have provided an opportunity for cooperation, and for maintaining the interest in reorienting education towards sustainability. It has become the basis for establishing the JTES and networking around the Journal as most reviewers and authors come from the BBCC network. Currently, members of the BBCC network also continue to work together to establish a wider global network around the JTES.

The paper by Evija Mirke in cooperation with Sarma Cakula and Lilian Tzivian entitled "Measuring Teachers-As-Learners' Digital Skills and Readiness to Study Online for Successful e-Learning Experience" presents an issue from previous studies concerning the need to measure learners' readiness for online learning. The aim of the study was to assess Latvian teachers' readiness to study online and to find differences by respondents' socio-demographic or professional characteristics. One thousand-ninety two teachers from 100 schools filled in the self-evaluation survey form online. Statistically significant differences were found in all subscales of the survey. Differences in digital skills and in readiness to study online were found at all educational levels by respondents' gender, age group or place of living. Younger respondents, males or city inhabitants showed higher rates.

The paper by Katrine Kūkoja entitled "The Effect of Early Childhood Education and Care Services in Latvia" presents a perspective on social investment at an early age. The highest return in human capital and the main instrument of social investment in this period is high quality early childhood education and care services. There has been an expansion of early childhood education and care services over the past decades in Latvia, especially for children until obligatory pre-school age. Research results showed that the first signs of social investment return could be observed in the positive influence on fertility rate, female and overall employment rate, average earning, etc.

The paper by Dzintra Kažoka and Māra Pilmane entitled "Detailed Images for Sustainability Development in Cross-Sectorial Human Anatomy" focuses on the rate of cross-sectional image effectiveness and qualitative study courses with a more articulated perspective on higher education sustainable development in medicine. The aims of the study were to assess and verify the impact of cross-sectional images on the study process of Human Anatomy in two randomly selected groups of 200 students from the Faculty

of Medicine (Rīga Stradiņš University) in 2018. Using a three-dimensional virtual dissection table “Anatome”, both groups analyzed cross-sectional images and X-ray pictures, computerized tomography scans and magnetic resonance images to learn Human Anatomy from basic studies until clinical courses.

The paper by Manisha Jetly and Nandita Singh “Analytical Study Based on Perspectives of Teacher Educators in India with Respect to Education for Sustainable Development” recognized through the literature review that countries of the Asia Pacific region were slow in formally embracing the concept of ESD in their educational system. The teacher educators have the power for initiating and facilitating the ripple effect of any new idea in an education system. Therefore, the research paper aimed at understanding the prevailing perception of ESD amongst the teacher educators of India. A qualitative deductive content analysis methodology was adopted for an in-depth analysis of the subjective responses of teacher educators, teaching graduate and post-graduate level courses of teacher education programs of India’s Chandigarh region. A codebook was developed on the basis of UNESCO’s Teaching and Learning for a Sustainable Future (TLSF) program for the analysis. The findings of the research identified how and to what extent the indicators of ESD were addressed through broader categories of knowledge, skills and values.

The paper by Asta Valackienė and Brigita Kairienė entitled “Students’ Participation in Search for Sustainability: A Case Study from Lithuania” searched for a means and prerequisite for sustainable society development. Seeking to ensure the continuity of sustainable society development, it is essential to turn back to children, i.e., school where the shapers for the future society are being raised and developed. To ensure decision-making in line with the sustainable social development conditions, children have to be prepared for it now. The most suitable place is the school of general education where students, as the members of the school community, should be able to get involved in all processes associated with the school development from the very first days at school and to get prepared for independent decisions in the future. The authors emphasize that, as active members of the school community, students should get involved in the school transformation processes. The authors raise the question: how are students (as active participants of the educational relationship) involved in the change processes and how this should be managed to ensure the sustainability of changes? The case study showed that the changes occurring on macro-level influence the functioning of the school and drove the change processes.

The paper by Athira Chellamma Gopalakrishnan in cooperation with Suresh Bhaskaran and Sudharma Ambujakshi entitled “Relationship between Proactivity and Personal Pedagogical Knowledge in ESD among Pre-service Teachers: Sub-sampling on Social Media Usage and Subject Discipline” examines the relationship between proactivity and personal pedagogical knowledge among pre-service teachers based on their social media usage and subject discipline in the context of ESD. The study documented the frequency of observable and measurable actions with respect to proactivity and personal pedagogical knowledge among a sample of 60 pre-service teachers of Kerala (India) using rating scales. The selected stratified random sampling method was based on four strata such as (1) Arts/Humanities discipline; (2) Science discipline; (3) Active usage of social media and (4) Passive usage of social media. The findings indicated that (1) there were pairwise differences in the teacher proactivity and personal pedagogical knowledge at high, average and low levels in the context of sustainability; (2) teacher proactivity for sustainability was high among pre-service teachers who were active in social media and who studied Arts/Humanities as a specialized subject; (3) personal pedagogical knowledge

of sustainability was high among pre-service teachers who were active in social media and who studied Arts/Humanities as a specialized subject.

The paper by Wisuit Sunthonkanokpong and Elizabeth Murphy entitled “Quality, Equity, Inclusion and Pre-service Teacher Education” presents a widespread agreement that teacher education has an important role to play in the achievement of the sustainable development goal (SDG) 4 regarding inclusive, equitable, quality education and lifelong learning opportunities for all. However, there has been limited attention in the literature to SDG 4 in the context of teacher education. The paper aimed at contributing to the literature on SDG 4 and teacher education. The paper identified a conceptual framework pertaining to quality, equity, inclusion and lifelong learning. The framework was applied to the case of Thailand to identify examples of progress the country was making in support of SDG 4 implementation in teacher education. The framework with the four concepts could be applied by researchers to identify examples of progress on SDG 4 in teacher education in other countries and contexts.

The paper entitled “ESD for All: Learning from #IndigenousESD Global Research” by Katrin Kohl in cooperation with Charles A. Hopkins was presented at the 2019 Global Conference on Teacher Education for Sustainable Development that took place at Okayama University, Okayama, Japan. Indigenous youth remains amongst the least-well served by public education and training systems. A new global research initiative intended to understand various perspectives of equitable and inclusive quality education from dialogues held with Indigenous and other stakeholders in 29 countries. The dialogue outcomes underlined the importance of twenty-first century competencies while understanding heritage and keeping connection to the land in harmony with modern identity and culture. Vital elements of education quality seen as relevant for Indigenous youth were aligned with education for sustainable development and therefore applicable for all learners.

The paper conducted by Rajab Esfandiari and Sepideh Hesani entitled “Willingness to Communicate, Possible Selves, Learner Autonomy, and Academic Target Needs: Implications for Sustainable Development in L2 Pedagogy” investigated the relationships between willingness to communicate (WTC) and possible selves, WTC and learner autonomy, and WTC and academic target needs in an English for Academic Purposes (EAP) context to open up new horizons for sustainable L2 learning. The study examined the extent to which WTC, possible selves, and learner autonomy would predict academic target needs. The findings showed a significant positive relationship between WTC and possible selves, and the results from hierarchical multiple regression revealed that WTC, possible selves, and learner autonomy were predictors of academic target needs. The findings suggested that the interplay of several variables should be considered if language learners needed to actively communicate in L2 academic settings.

The paper done by Shaimaa Abdul Salam Abdul Salam Selim entitled “Integrating Sustainable Development Requirements into the Secondary Stage Chemistry Curriculum in Egypt” aimed at integrating some requirements of sustainable development in secondary school chemistry curriculum. To achieve the aim, the following tools and materials were prepared: a list of sustainable development requirements and a questionnaire for investigating students’ opinions about sustainable development requirements that should be integrated into the secondary-stage chemistry curriculum. To that end, the researcher analyzed the content of chemistry curricula in the three grades of secondary education in Egypt for school year 2017–2018, and prepared a list of 57 requirements of sustainable development.

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