Editorial

Greetings from the team of Editors-in-Chief of the *Journal of Teacher Education for Sustainability* (JTES). We have a new member in our team from Daugavpils University PhD Ilona Fjodorova and hope that the JTES team will become more flexible with regard to findings of some new perspectives for the JTES toward a more sustained and united team of editors, Editorial board members and JTES authors.

Some structural changes were accomplished during the end of 2015 with regard to JTES network creation and re-creation, as well as framing with the aim to develop a *lived network* around the JTES.

We have some trends about the development of the network around the JTES as the Journal is associated with UNESCO Chair on the Interplay of Tradition and Innovation in Education for Sustainable Development at Daugavpils University (Latvia). The JTES editors’ team takes care of the Journal’s growth so that it becomes available for use and open for possibility to publish original articles according to the Journal’s specific theme.

Gradually, changes have appeared and we have some measurable indicators. For example, changes of CiteScore in Scopus: 0.64 in 2015, 1.15 in 2017, and 1.65 in 2018. Now we are cooperating with Sciendo and the electronic version of the JTES is available at http://content.sciendo.com/view/journals/jtes/jtes-overview.xml

We also studied the society’s interest in the JTES and attempted to visualize the picture from the perspective of readers as well as authors submitting articles for publishing in the JTES. It was not an easy task, but we found some ways to summarize the trends providing an insight into the core of JTES readers; however, with a slight delay and not in big data language. We found out that 67% of readers of the JTES (data of 2017) were from the USA, 9% from Australia, 6% from Great Britain, 3% from Canada and 15% of readers from other 51 countries.

We collected more precise data about authors submitting articles for the Journal. Through all submitted articles including published ones, we determined the JTES authors’ geographical belonging (data of 2018). According to this idea, we identified a new perspective in the world by making focus from JTES development inside the region of Baltic and Black seas, which became the region for gradual development of the Baltic and Black Sea Consortium in Education Research for ESD (BBCC). We accepted the BBCC network’s region as a “point” of reference and grouped the JTES authors’ countries toward direction and belonging to ocean coasts. Thus, we obtained the following results: 36% of authors were from the Pacific Ocean countries, 30% from the Baltic Sea and 22% from Black Sea Region countries, 7% from the Indian Ocean countries and 5% from the Atlantic Ocean region (except the Baltic States). This frame of investigation constructed from the perspective of BBCC development demonstrated that authors of JTES articles are probably from the Pacific Ocean and BBCC network regions, but readers we can find far away from the region of the Baltic and Black seas.

This volume contains articles from Latvia, Norway, Austria, Indonesia, Lithuania, Kosovo, Iran, Saudi Arabia and Jordan.

The paper by Anita Pipere *Journal of Teacher Education for Sustainability after the UN Decade of Education for Sustainable Development: Exploring for the Future* DOI: 10.2478/jtes-2019-0001
aims to explore the research output performance published in JTES immediately after the UN Decade of ESD (2015–2018). Following the guidelines of bibliometric study and literature review and grounding on the qualitative and quantitative content analysis, the study presents the analysis of the main bibliometric indicators and research paradigms in the papers published in JTES. The paper ends with the main conclusions, limitations, suggestions for the further research and prospective development of the Journal, as well as some implications for the potential authors of JTES.

The paper by Anne E. M. Fox in cooperation with Sandra Iriste and Petra Bezeljak Detecting a Sustainable Mindset through Using Content Analysis of Teacher-produced Learning Journals presents reflections on detecting a Sustainable Mindset through using Content Analysis of Teacher-produced Learning Journals. As part of a blended learning training over four months, a global group of teacher participants were required to keep a learning journal of their activities and reactions to the materials and tasks. These learning diaries were then collated and processed through Leximancer to answer four research questions of increasing complexity from the simple one of asking whether the course had caused its participants to focus on the issue of sustainability, to the question of whether reflection on the pedagogy of sustainability had deepened over the lifetime of the course.

The paper by Sumaryanta, Djemari Mardapi, Sugiman, and Tutut Herawan Community-based Teacher Training: Transformation of Sustainable Teacher Empowerment Strategy in Indonesia addresses teacher empowerment as a central issue in relation to the efforts to improve the quality of education. This paper investigates a teacher empowerment strategy in Indonesia, which was conducted by employing a community-based teacher training program. The research results showed that the community-based teacher training succeeded in increasing the professionalism of teachers in Indonesia, particularly in terms of implementing their pedagogical and professional competencies.

The paper by Edgar Petrinko Teachers Perspective on Wise Education reports about teachers’ perception of wisdom notion and the teachers’ wisdom itself. The study explores a phenomenological approach and the experience of teachers by using semi-structured interviews. The interview data are the qualitative content analysis complemented by some elements of quantification for visualization of a more holistic picture. The phenomenon of wisdom is described on the basis of teachers’ values and experience. According to the teachers, wisdom comprises several aspects and is viewed as a dynamic process. The conclusions reflect the integrity of the phenomenon of wisdom, as well as the importance and prospects of further study of wisdom for its use in the work of teachers.

Maritana Gorina and Ėina Šukste report about Trust in the Acquisition of Life Experience of Children left without Parental Care. The primary aim of the study is to find out how the phenomenon of trust affects children left without parental care and its role in acquiring a sustainable life experience. In this case, trust is seen as a lifetime, dynamic phenomenon of experience that has been initially developed in the biological family and/or in a foster family which, in its order, is influenced by the society. The collected data of the action research on the aspects of trust/distrust in terms of sustainability demonstrate that trust for these children is a complex system, which consists of openness, frankness, sincerity, honesty, the ability to keep promises, benevolence and respect. However, if there is mistrust, the child is led by different fears, distrust in the world and fellow human beings.
Veselaj Zegir in cooperation with Mustafa Behxhet and Krasniqi Zenel presents *Pro-Ecological Views of Kosovar Teachers Measured by Endorsement of the New Ecological Paradigm Statements*. The New Ecological Paradigm (NEP) scale is a survey-based metric devised to measure the environmental concern of groups of people using a standard survey instrument. This is the first research to measure how in-service teachers in Kosovo perceive the NEP scale. The aim of the research is to assess the concerns of Kosovar teachers about environment in the age of Anthropocene by supporting anthropocentric or eco-centric views. Research methodology is quantitative and the sample consists of 88 primary school teachers. Results of the research show that teachers’ concerns about environmental developments are mostly consistent with the views of the NEP scale or pro-ecological worldviews.

Zhila Mohammadnia and Farzane Deliery Moghadam reflecting on *Textbooks as Resources for Education for Sustainable Development: A Content Analysis* discuss a possibility of successful integration of Education for Sustainable Development (ESD) in the general educational programs through available methods and resources. This paper argues that the English language learning textbooks in Iran have a potential to be useful resources and a viable springboard for the implementation of ESD. For this purpose, the study explores the content of English textbook series developed by Iranian authors through the lenses of ESD. The framework for analysis is based on UNESCO Earth Charter and the Roadmap for Implementing the Global Action Program on ESD. The findings reveal that the themes of sustainability are present in these English textbooks to a good extent. However, the results suggest that there should be a more even distribution of such themes throughout the series.

Hussein Meihami and Ilga Salóte present *EFL Teachers’ Cultural Identity Development through Participating in Cultural Negotiation: Probing EFL Students’ Perspectives*. This study was an attempt to probe the perceptions of the EFL students about the cultural identity development of the EFL teachers who participated in cultural negotiation programs. The interaction-oriented narratives of four EFL students were collected. The narratives were about the cultural performance of the EFL teachers who participated in the cultural negotiation programs in the EFL classes. The findings indicated that the EFL students perceived that the EFL teachers engaged more in cultural discussions, they used more interaction types, they were more motivated to address cultural issues in the classes, and they took into account the emotions of their students in cultural discussions in the classrooms. Moreover, it can be concluded from the findings that cultural negotiation programs have positive effects on the EFL teachers’ cultural identity development if the principles of identity-as-practice and identity-in-discourse are followed in the EFL teacher education programs.

Alireza Bonyadi present *Discourse Analysis and Language Pedagogy: A Review*. Based on the premise that education for sustainable development (ESD) in language pedagogy cannot be realized fully unless language teachers are equipped with theoretical issues in discourse analysis, the author explores the current research on discourse analysis and language teaching. His review indicates that there are mainly three approaches, namely critical discourse analysis, descriptive discourse analysis, and pedagogical discourse analysis in educational contexts. In this paper, the author postulates that prospective researchers are expected to focus on operationalizing discourse concepts at methodological levels.
Amani K. Hamdan Alghamdi and Wai Si El-Hassan report about *Raising Saudi Students (Energy) Sustainability Awareness through ESL – Teachers’ Thoughts*. This inaugural qualitative study solicited English as Second Language (ESL) teachers’ thoughts about using ESL to teach Saudi Arabian (SA) university foundation year students and raise their awareness of energy and sustainability issues. Fourteen participants from three higher education institutions in the Eastern Province of SA prepared typed responses in a word office document to 15 questions pertaining to ESL teachers’ perceptions, opinions, beliefs, attitudes, knowledge, and values of using ESL to teach sustainability. The findings indicated a positive picture towards incorporating sustainability topics into Saudi Arabian ESL curriculum. Participants were enthusiastic about such tasks and about seeking knowledge related to sustainability by various means to augment lack of knowledge.

Team of Editors-in-Chief:
Ilga Salīte, Ilona Fjodorova, Dzintra Iliško,
Javad Gholami, Oksana Ivanova, Hussein Meihami
Exploring for the Future is a $100.5 million initiative by the Australian Government dedicated to boosting investment in resource exploration in Australia. The four-year program led by Geoscience Australia focuses on northern Australia and parts of South Australia to gather new data and information about the potential mineral, energy and groundwater resources concealed beneath the surface. With incomparably smaller resources the Journal of Teacher Education for Sustainability (JTES) continues its global mission after the end of United Nations Decade of Education for Sustainable Development (UN DESD), publishing papers ultimately exploring for the future of human civilization and planet Earth. This paper is conceived as another exercise in developing insight for the research advancement in the field of teacher education (TE) for sustainability over the four-year period of publications in JTES (2015–2018).
This is the fourth publication on the development of JTES: The reflections on the Journal started with the short vignette in UNESCO guidelines at the beginning of the Decade (2005), followed by presentation of JTES as the TE institution’s good practice in the field of education for sustainable development (ESD) (Salòte & Pipere, 2007). The third publication presented an extensive review of the research field and bibliometric analysis of JTES during the UN DESD (Pipere, Veisson, & Salòte, 2015). The currently presented paper in terms of its content and structure is intended as the follow-up and to some extent also the methodological replication of the previous paper. The difference between these articles lays mainly in theoretical background and interpretation of results. Since the previous paper contained the extensive introduction to the establishment and maintenance of JTES, as well as the detailed insight into the research field of TE for ESD/sustainability, this information will be omitted in the present paper. In relation to the interpretative part of presentation, considering the fact that the currently reviewed period is almost twice shorter than the previous one, the author will not focus on the internal dynamics of development within the analysed four-year period.

Regarding the institutional context of JTES, it needs to be mentioned that the agreement concerning the establishment of UNESCO Chair on Teacher Education and Continuing Education: Interplay of Tradition and Innovation in Education for Sustainable Development at Daugavpils University was signed between the United Nations Educational, Scientific and Cultural Organization and Daugavpils University on July 15, 2013. Professor Ilga Salite was designated as the head of UNESCO Chair. Since the second part of 2015 JTES has become officially approved periodical of UNESCO Chair on Teacher Education and Continuing Education.

To ground the necessity for the presented study, the context of important global events should be addressed at the outset. The reviewed period of time covers the first years immediately after the end of UN DESD. Therefore, the “institutionalized and formalized”global boost for ESD research has come to an end and now it is important to learn what kind of changes have emerged in content and research approaches of JTES’ authors, what kind of transformation in thinking of researchers and practitioners can be noticed, if any, in these first post-DES years in order to keep track of the situation in the field. Since the main goal of JTES still reads as the need to develop quality research in the field of TE for sustainability, the editorial team of JTES needs to monitor the deviations from good quality, evaluate the success, identify still persisting and newly appeared problems, provide up-to-date recommendations for the further development of JTES.

While the regular reviews on JTES may help to fill the gap in studies summarizing the advances in research paradigms and trends of TE for sustainability, the review for the respective professional field has been recently authored by MacKeown and Hopkins (2014). Their paper describes the leading edge of ESD in the realm of TE at the end of the UN DESD. This contribution contains the analysis based on the academic literature and documents as well as 50 responses to survey questions elicited by experts in the field of ESD working at TE institutions representing 44 countries. The Appendix containing the list of respondents includes three responses from Daugavpils University (Latvia), one of which outlined activities of the Baltic & Black Sea Circle Consortium (BBCC), one of the JTES, and one of the University. Some of the conclusions provided in this paper are well atuned to the context of the present paper. For instance, to analyse both professional practice and research in the area of TE, one has to acknowledge the situation
that TE is performed differently in different parts of the world. This also relates to the contents and forms of the research on TE, although, probably at a smaller rate, since the global academic community of educational researchers, due to more or less similar institutionalization and peer-review processes, are not so disparate in their research practice as teaching professionals in the given field. However, “the reviewers of articles on TE for sustainability have to consider and carefully deal with the diversity of research coming from different parts of the world caused by the distinct cultural and historical background and institutional discourse” (Pipere et al., 2015). Furthermore, the greater diversity of countries represented in the Journal is bound to larger problems for editors-in-chief and reviewers in monitoring the virtue of submissions and presenting the balanced quality of papers in each volume of the Journal.

According to MacKeown and Hopkins (2014), TE institutions have to move from localized to wide-scale implementation of ESD now. As it was already denoted four years ago, “larger-scale comparative studies providing system-wide and policy-oriented evidence, although hard to conduct, would be necessary to develop the field” (Pipere et al., 2015, p. 15). Thus, TE research should be definitely oriented towards this movement after the UN DESD. However, it seems that now it has become even more utopian vision.

ESD in the field of TE moved from awareness raising to capacity building and finally it finished with efficacious implementation of good ESD practices. Since the beginning of UNESCO Global Action Programme (GAP) (UNESCO, 2014) and the involvement of the new TE institutions and researchers in this movement toward ESD, the research outcomes can be related to all three dimensions mentioned above. Nevertheless, because of more than a decade long global experience, the case studies presenting the analysis of good ESD practices would probably be presented in larger numbers.

**Conceptual Approaches to the Interpretation of JTES (2015–2018)**

The idea to concieve this paper partly came from the obligation to inspect the implementation of six recommendations elicitied from the previous study (JTES 2004–2015) for the further development of JTES, namely, to:

- Deal with the diversity of research coming from different parts of the world and preserve its specific individuality while maintaining the high standards of academic writing,
- Increase the amount of large-scale multi-national, multi-institutional and multi-disciplinary research,
- Improve the overall quality of publications paying particular attention to the methodological dimensions of contributions,
- Strengthen the Editorial Board of JTES by inviting several experts in the research methodology of educational research and teacher education,
- Respond to the call from the UNESCO GAP (UNESCO, 2014) to focus research on issues not fully resolved or even increasing during DESD,
- Decrease the number of papers only marginally connected with TE for sustainability (Pipere et al., 2015, p. 34).

Using the selected methodological approaches, this paper will provide answers about these six points demonstrating both the success in dealing with problems and some dimensions of the Journal development lacking the progress yet.
Regarding the fifth recommendation – the call from the Global Action Program on ESD (UNESCO, 2014) to explore the issues emerging during the DESD, all five priority action areas, including, 1) to advance the policy, 2) to transform the learning and training environments, 3) to build the capacities of educators and trainers, 4) to empower and mobilize youth, and 5) to accelerate sustainable solutions at local level, will be used to classify the analysed papers by their topics.

Moreover, based on the previous paper (Pipere et al., 2015), processes which are necessary for effective ESD (Tilbury, 2011), i.e., collaboration, dialogue, whole system engagement, curriculum innovation, teaching/learning and active/participatory learning would be searched for the theoretical background and/or methodological elaborations of analysed papers. This analysis was not provided in detail in foregoing paper because of length limitations; however, the present paper used these processes as the deductive framework for the scope of research topics.

In the present study, a particular emphasis was given to the philosophical framework of papers, as “researchers working in the field of TE for sustainability should carefully follow the latest events in terms of the conceptual development of ESD/sustainability, recent discussions on educational theories and philosophical approaches in education” (Pipere et al., 2015, pp.15–16). Grounding on the outcomes of the previous analysis, the terms of holistic theory, complexity and anthropocentric/non-anthropocentric divide were searched in the present analysis; nevertheless, the new theoretical trends and approaches were “fished” for, too.

Similarly, as in the previous study (Pipere et al., 2015), the research papers published in JTES (2015–2018) will be classified by their genre using the taxonomy of TE research by Borko, Liston, and Whitcomb (2007) in which the papers will be identified as containing the effects of research, interpretative research, participant research, or design research. The effects of research is based on quantitative inquiry and uses experiments, quasi-experiments and correlational research. This research genre can be used to design and evaluate TE programmes, as well as, any interventions related to TE in terms of ESD. Interpretative research represents the qualitative inquiry exploring the specific situation from the perspectives of participants. In the context of TE this research genre tries to explain the sociocultural processes in natural settings related to TE. Moreover, it aims to improve professional practice, describe the results of policy enactment, and shape the theoretical development of TE. The participant research can be seen as part of interpretative research as it is “conducted by those who do the work of TE in order to understand and improve practice within a local context; therefore, blurring the boundaries between research, practice and improving the practice of TE” (Pipere et al., 2015, p. 11). This research genre presupposes the implementation of action research, participatory research, self-study and teacher research. The last genre is design research maintaining the strong connection between the improvement of practice and development of theory. For instance, an educational environment can be designed and enacted for pre-service teachers and the development of future teachers can be explored within this specific environment. Such a research study does not focus on the design of generalizable products (programs, devices, interventions, etc.), but its focus is on the constant adaptation of TE process in line with assessment of individual and collective activity (Borko et al., 2007).

Other framework used for the classification of papers will be based on research type, first of all, exploring the proportions of theoretical elaborations and empirical research. It is an obvious trend that for academic community, policy makers and practi-
tioners empirical research grounding evidence-based practice seems to be more valuable than theoretical work. However, during the times of transformation and change, especially in case of specific fields of research like TE for ESD, such theoretical contributions are really indispensable to summarize the previous theoretical paradigms or inspire the further theoretical development of the discipline. Though, evaluating the theoretical papers we should certainly follow the suggestions by MacKenzie (2003) that “without well-developed construct definitions, it is impossible to develop a coherent theory because constructs are the building blocks of theory” (p. 324). It is especially important for the theoretical development of research areas like TE and the field of ESD. However, the researchers were caught in certain contradiction. Since the term of ESD suffers from the lack of clear definition and due to time of context and time dependent nature of sustainable development (SD), ESD would succeed paradoxically both from reducing vagueness and maintaining its ambiguity (Eernstman & Wals, 2013).

To continue with delineation of research types and, focusing specifically on the research methodology of empirical papers, the educational researchers most likely will accept to divide them into quantitative, qualitative and mixed methods research. According to Sleeter (2014), one of the features of TE research capable of informing policy is that it “combines methodologies that include both quantitative and qualitative data, enabling policymakers to “see” how a program or practice might interface with local realities while also enabling them to assess its impact in clear terms” (p. 2). For this reason the special attention in the present analysis was given to the “quantity and quality” of mixed methods research.

Following the previously stated theoretical idea about the semantic waves manifested in the meaning of accumulated knowledge and once again searching for the semantic gravity and semantic density in the published set of papers, some features of Legitimation Code theory (Maton, 2014) need to shortly be sketched. According to this theory, all knowledge can be exhibited in semantic waves that show the strengthening and weakening processes in relation to contextual dependence of knowledge and the concentration of meaning, thus, this theory “uses codes of semantic gravity that refer to the degree of abstraction or degree to which meaning relates to context and semantic density that refers to the degree of the growth in complexity or of the concentration of meaning within practices” (Pipere et al., 2015, p. 32).

Methodology

The methodological approach applied in this paper merges the bibliometric study with different forms of literature review. Similarly as in the previous study (Pipere et al., 2015), this exploration was based on the methodology of bibliometrics focusing on the single periodical – Journal of Teacher Education for Sustainability published by the UNESCO Chair on the Interplay of Tradition and Innovation in Education for Sustainable Development at Daugavpils University, Latvia, after the UNESCO Decade of ESD (2015–2018). Bibliometric analysis of single periodical can provide a deep insight and very detailed portrayal of a set of published submissions in the given field of academic research (Regolini & Jannes-Ober, 2013; Thanuskodi, 2010). Considering the much smaller number of analysed volumes in comparison with previous exploration, several less important characteristics of the Journal would be omitted, while some elements will be emphasized more. Following the analytical framework of bibliometric measures by Kevin, Zainab,
and Anuar (2009) as well as several common variables included in bibliometric studies (Regolini & Jannes-Ober, 2013; Wright & Pullen, 2007), the overview of qualitative and quantitative bibliometric results will include 1) the Journal’s impact and databases, 2) representation of countries, institutions, authors, citation rate, 3) philosophical background, 4) keywords and topics, and 5) methodological features of the papers.

Some aspects of the presented study resemble the literature review, as this paper will compare the results of the previous study on certain issue (namely, JTES) with the current situation in this Journal, trying to distinguish emerging trends and issues in TE for sustainability. Given study also significantly aligns with the features of integrative review. Torraco (2005) states that this type of review “is a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated” (p. 356). To accomplish these goals the patterns, similarities and differences among the articles within the sample (65 JTES papers) will be determined. Using a framework for integrative review developed by Whittemore and Knafl (2005), retained articles were read three times to determine the quality of the writing, to reduce and compare data within the articles and to analyze and synthesize themes and patterns within the literature sample. Besides, some aspects of this study will follow the discourse of methodological review, since the papers from JTES will be analysed also in terms of research approaches, methods of data collection and analysis (Fink, 2009; Petticrew & Roberts, 2009).

Quantitative bibliometric data analysis was performed by simple counting or labelling procedures making inferrences about the existence or frequency of respective variables: the indicators of Journal’s impact, databases, number of contributions per volume, representation of countries, institutions, authors, co-authorship patterns, citation rate, data analysis methods, etc.

In order to perform the analysis in terms of research paradigms, discerning the philosophical background of the studies, qualitative bibliometric analysis was merged with the deductive coding approaches in the context of qualitative content analysis of textual data. To interpret the philosophical background of published articles, deductive coding was based on the theoretical approaches invoked in the previous study (Pipere et al., 2015), also recording the novel features of philosophical underpinnings of the papers. The novel methodological trait was the usage of quantitative content analysis in order to count the appearance of philosophical discourse and references to specific philosophical concepts in the selected set of papers (JTES 2015–2018).

To distinguish the groups of keywords, research topics, and certain methodological features (research type and genre), deductive coding was used to map these elements on the taxonomies provided in the previous study (Pipere et al., 2015). Besides, all changes and new elements were observed and recorded as well. In general, coding was performed using the semantic details from the title, keywords, abstract, and main part of papers and analysing them in the light of authors’ academic experience and analysis of literature in the field of TE for sustainability.

As it has already been suggested above, the aim of this study is to explore the research orientation of the papers published in JTES immediately after the UN Decade of ESD (2015–2018) focusing on the main qualitative and quantitative bibliometric indicators and the research paradigms used. Three research questions will be answered in the following presentation:
1) What changes can be observed in the main bibliometric indicators of papers published in JTES (2015–2018) in comparison with the papers published in JTES (2005–2014)?

2) What changes can be observed in the research paradigms of papers published in JTES (2015–2018) in comparison with the papers published in JTES (2005–2014)?

3) How do these changes align with the recommendations and suggestions elaborated in the previous study (Pipere et al., 2015)?

Corpus of the Study

The present study targets the articles published in JTES from 2015 to 2018. The data pertaining to JTES includes 65 articles in seven issues starting from volume 17 in 2015 to volume 20 in 2018. The exploration of editorship for studied issues shows the large changes in the amount of editors and personalities in comparison with the previous period of analysis. The number of editors-in-chief has changed from one to four, besides, the new position of associate editor has been established instead of language editor (with similar functions) since 2017. The first analysed issue (17(1), 2015) was edited by Astrīda Skrinda (Daugavpils University); following issue (17(2), 2015) was edited by the guest editor Anita Pipere (Daugavpils University). Next five volumes were published under the guidance of Ilga Salite and Dzintra Ilīsko (Daugavpils University) in cooperation with several Iranian colleagues. Javad Gholami (Urmia University) was invited as the guest editor for the volume 18(2), (2016), while in volume 19(2) (2017) he joined the team of editors-in-chief. In 2018 (20(1)) one more Iranian scholar Hussein Meihami (Shiraz University) acceded the group of editors-in-chief. Moreover, the last four years of JTES have been particularly remarkable with regard to the quantitative and qualitative development of Editorial Board; about 20 new members have joined the team of peer reviewers, among them such internationally recognized academics as Charlotte Holland from Dublin City University (Ireland), Andreas Brunold from the University of Augsburg (Germany), Michele Biasutti from the University of Padova (Italy), Tomonori Ichinose from Miyagi University of Education (Japan) and many others.

Results

Main Bibliometric Indicators (JTES, 2015–2018)

Impact and databases. Although the number of databases representing JTES has not changed a lot in the past four years, the impact of journal has obviously increased, e.g. SCImage Journal Rank (SJR) has increased from 0.217 in 2014 to 0.313 in 2017, Source Normalized Impact per Paper (SNIP) has significantly rised from 0.256 to 1.335. Impact per Publication in 2014 was 0.222, while recently introduced CiteScore in 2017 was 1.15.

Representation of countries, institutions, authors, citation rate. The Journal still has two issues per year. The number of articles per volume in the targeted seven issues ranged from 6 to 11 articles – 7.9 articles on average per issue (previously 7.7). The submitted papers have come from 29 countries representing all parts of the world. However, JTES maintains the imbalanced distribution of papers regarding the countries. Again,
six countries have provided about 70% of total publications (Latvia (32.3%), Iran (10.8%), Lithuania (7.7%), Estonia (6.2%), Germany (4.6%), Finland (4.6%)). Canada, Japan, Jordan, Slovakia, Spain, Turkey and the USA each have been represented by two papers (3.1%). Other countries (Australia, Colombia, Fiji, Indonesia, Ireland, Italy, Malta, Namibia, the Netherlands, Poland, Republic of Croatia, Saudi Arabia, Serbia, Singapore, South Africa, and Ukraine) have been represented by one paper each (1.5%). The current distribution shows the trend toward redirecting the main focus of submissions from the North of Europe to the Central and Southern part of Europe, as well as to the Middle East. Besides, the scope of the countries has been maintained and somewhat extended in these past four years (from 26 to 29 countries). Six papers were authored by scholars from different countries – 9.2% (about three times more than in the previous period). Ten papers were written by the representatives of different institutions within a single country, thus manifesting the growing trend of inter-institutional dialogue.

Moreover, new transdisciplinary turn has been noticed not only in philosophical background of the papers (see the next section of the paper), but also in six papers whose authors represented, using the terminology of transdisciplinary paradigm, different types of stakeholders (Mauser et al., 2013). Thus, in paper by Geng, Midford, and Buckworth (2015) the stress level of pre-service teachers during teaching practicum was explored in collaboration between the Charles Darwin University academics and representative from the Menzies School of Health. The author of the paper on the teacher ecological self Rea Raus (2016) represents both the academic institution and NGO (University of Tampere and Statera Research and Practice Center for Sustainability), while Bikse and her colleagues from Latvia (2016), who analysed the transformation of universities toward entrepreneurial universities, are academics from two universities and BA School of Business and Finance. Stanzus with colleagues (2017), describing the development of a consumption-specific intervention based on mindfulness training, represent two universities, two mindfulness research institutes and the European Centre for Mindfulness, therefore, designating the fruitful cooperation of different disciplines and practitioners in this transdisciplinary field. Two more papers are written by partners from university and public schools in South Africa (Okeke & Mtyuda, 2017) and the USA (Lekunze & Strom, 2017).

The leading institution with 11 papers (16.9%) published in JTES from 2015 to 2018 again was Daugavpils University, besides, also the representatives from eight other higher education institutions from Latvia lately have found this possibility more attractive (7.7%). From all 155 authors of 65 papers 57 (36.8%) were men that aligned with the world-wide trend of female domination in education system and also in educational research. About one quarter (39.9% in the previous period) of articles were written by a single author, other papers were authored by two to nine authors – average number of authors per paper was about 2.3 during the analysed period.

In a period from 2015 to 2018, only 23 (35.4%) papers have not been cited yet (in majority from the most recent volumes). Three papers that have received the largest citation rate by April 2019 in SCOPUS are authored by Pipere et al. (2015) (15 citations), Bell (2016) (14 citations), Salite, Drelina, Ilısko, Olehnoviča, & Zariņa (2016) (12 citations). In comparison with the previous period, when only 24.6% of papers were cited at least once, this is quite impressive increase signifying the global relevance of the publications in JTES.
Research Paradigms (JTES, 2015–2018)

**Philosophical background of the papers.** This overview will focus on a deeper analysis of the theoretical (philosophical) discourse during the last four years of JTES, particularly looking for changes in the themes already found in the previous period of JTES (2005–2014), namely, holism, complexity, anthropocentric/non-anthropocentric divide, humanistic philosophy, as well as searching for the new trends. Following the reporting style of both qualitative and quantitative content analysis, numbers and citations from the papers will serve as illustration for the author’s argumentation.

Detailed exploration of the content of the articles shows that many authors admit the necessity to refer to some philosophical concepts or theory. However, not all of them elaborate on this philosophical discourse. The analysis of the papers proves that 26 (40%) papers comprise some references to philosophical concepts, theories and approaches similar to those applied in previous volumes of JTES or new ones. This testifies the significant increase in comparison with the previous analysis in years 2005–2014, when only 25% of papers contained some philosophical treatise of the subject matter. However, in the present analysis only seven papers demonstrate the attempts of more or less extensive elaboration on these concepts, theories and approaches (Bojäre, 2016; Bojäre & Skrinda, 2016; Fedosejeva, Boče, Romanova, Iliško, & Ivanova, 2018; Jurgena, Čedere, & Keviša, 2018; Pipere et al., 2015; Raus, 2016; Salõte, Drelinga, Iliško, Oléhnoviča, & Zariùa, 2016). Against expectations almost all of these papers contained also some empirical research, indicating that these theoretical discourses mainly served as an extensive background for empirical research.

In further presentation, the current usage of terms already applied in earlier theoretical elaborations of JTES papers from 2005 to 2014 will be explained (holism, complexity, anthropocentric/non-anthropocentric divide, humanistic philosophy) as well as some newly introduced concepts will be reviewed.

**Holism.** From 26 papers that included philosophical underpinnings of theoretical analysis or empirical research, 23 papers (35.4% from overall sample) contained the references to holism. This is a significant increase in comparison with 13.8% of papers in the previous study. The content analysis of the papers shows that this concept has been used most often in four lengthy papers, namely “Education for Sustainable Development: The Choice of Pedagogical Approaches and Methods for the Implementation of Pedagogical Tasks in the Anthropocene Age” by Fedosejeva et al. (2018) (54 times), “Autonomous Learning for English Acquisition in Blended E-studies for Adults within the Context of SD” by Bojäre (2016) (33 times), “Transformation of the System of Values of Autonomous Learning for English Acquisition in Blended E-studies for Adults: A Holistic Fractal Model” by Bojäre and Skrinda (2018) (31 time) and “Developing Research in Teacher Education for Sustainability: UN DESD via the *Journal of Teacher Education for Sustainability*” by Pipere et al. (2015) (28 times). Fedosejeva et al. (2018) write about “more holistic research”, “more holistic view”, “more holistic framework”, etc., thus pointing toward the insufficiently holistic nature of these entities. In this paper the adjective “holistic” is used together with a wide scope of phenomena, like research, research framework, view, approach, understanding, framework, action, etc., although the main focus is on the holistic research framework for educational research in the context of ESD. In a similar vein Bojäre (2016) applies the concept of “holism” to a wide scope of various phenomena, however, the main focus of her paper is the holistic model of autonomous learning. Following the initiated trend, the same author with a
co-author has published paper on a Holistic Fractal Model of value transformation in autonomous learning attaching “holism” to 18 different phenomena starting from the holistic system of values and ending with holistic approach and holistic properties. Programmatic paper by Pipere et al. (2015), describing the current situation in TE, ESD research and higher education for sustainability stresses the holistic approach to education as well as evaluates the usage of holistic theory and methodological holism in the papers of JTES.

Complexity. From 26 papers, including any references to the philosophical underpinnings of theoretical analysis or empirical research, half of them (20% from overall sample) contained the references to complex phenomena or complexity, however, sometimes it was hard to discern if the authors have envisaged complexity as a theoretically grounded term or just used the adjective “complex” as the synonym for something manifold, entangled, heterogenous, confused etc. In comparison with 5.1% papers containing some elaborations on complexity in previously studied volumes of JTES, the increase of about four times in past four years shows the obvious interest of authors regarding this concept. The content analysis shows that terms “complex” or “complexity” have been used most often in three papers, e.g., “Developing Research in Teacher Education for Sustainability: UN DESD via the Journal of Teacher Education for Sustainability” by Pipere et al. (2015) (33 times), “Sustainability from the Transdisciplinary Perspective: An Action Research Strategy for Continuing Education Program Development” by Salóte et al. (2016) (22 times) and “Education for Sustainable Development: The Choice of Pedagogical Approaches and Methods for the Implementation of Pedagogical Tasks in the Anthropocene Age” by Fedosejeva et al. (2018) (17 times). The creators or inspirers of these papers mostly have been the editors of JTES. Pipere et al. (2015) use the term “complexity theory” mainly in order to grasp the contemporary trends in educational research in general and in research related to TE for sustainability. Paper by Salite et al. (2016) activates much wider implications of complexity using it in 12 expressions like complexity approach, complex phenomena, complex issues, complex processes, complex sciences, etc. In this paper it is rather hard to pinpoint the specific target for the application of this phenomena as it is used both in terms of science, education, action research, issues to be dealt with in action research, etc. Fedosejeva et al. (2018) mostly use the terms “complex approach” and “complex phenomena” attributing them to different phenomena of the world and education.

Anthropocentric/non-anthropocentric divide. Explicit reference to the anthropocentric/non-anthropocentric divide or critique of anthropocentrism have been observed in four papers that shows a significant decrease from 15.4% in the first study to 6.2% in the current study. Pipere et al. (2015) mention it 14 times speaking about these terms as integrated in theoretical approaches for ESD research or TE for sustainability research. Raus (2016) refers to the anthropocentric orientation acknowledging that “our educational enterprise should change from being grounded in a techno-specialist, anthropocentric orientation toward an orientation, which is far more generalist and ecologically relevant” (p. 43). Salite et al. (2016) speak about the need for the detachment of science from anthropocentric impact on the global system, while Fedosejeva et al. (2018) indicate that “public support for the implementation of the ESD goals has increased, but the state of nature-human relations has remained under the dominant influence of anthropocentrism, egocentrism and currently apparent technocentrism” (p. 160).
Humanistic philosophy. From all papers using the philosophical terminology only three papers relate to humanistic theory. Pipere et al. (2015) mention humanistic philosophy as the trend used by some authors of JTES papers, while Bojāre (2016) and Bojāre and Skrinda (2016), focusing on the model of autonomous learning, mention humanistic paradigm of society, humanistic theory of autonomous learning and humanistic approach to education.

Transdisciplinarity. Transdisciplinarity is the new concept gradually emerging in the evaluated papers from 2015 to 2018. Eight papers (12.3% from 65) integrate the idea of transdisciplinarity, while two papers contain the deeper elaboration on this topic. The content analysis of paper “The Prospects of Transdisciplinary Approach to Promote Learners Cognitive Interest in Natural Science for SD” by Jurgena, Čedere, and Keviša (2018) shows that the authors have used the term “transdisciplinarity” 31 time; the authors obviously try to suggest the foundations for their empiric research and scrupulously explain the transdisciplinary approach in the context of science and education, contextualizing this in the discourse of SD. Other paper containing “transdisciplinarity” in its title is “Sustainability from the Transdisciplinary Perspective: An Action Research Strategy for Continuing Education Program Development” by Salote et al. (2016). Thus, the authors pay a lot of attention to the discussion about the transdisciplinary approach to research. In this case they aim to build an advanced theoretical conceptualization for the empirical exploration related to a participatory action research strategy. Other authors mentioning transdisciplinarity once or twice (e.g., Bojāre & Skrinda, 2016; Carbach & Fisher, 2017; Fedosejeva et al., 2018; Mammadova, 2017; Pipere et al., 2015; Stašulāne, 2017) mainly apply this term speaking about transdisciplinary research, projects, field trip approach, etc.

Ontology. The set of analysed papers for the first time contained explicit references to the ontology (four papers). Two papers were championing in this regard both containing 13 references to this term embedded in different expressions or phrases. Raus (2016) in her theoretical paper “Modelling a Learning Journey towards Teacher Ecological Self” designates pedagogy as the science of being (ontology) and, trying to theoretically justify the need for teachers’ ecological self, indicates that unsustainability should be tackled from the fundamental level of ontology. Fedosejeva et al. (2018) refer to ontology as a philosophical dimension and similarly focus on the ontological roots of pedagogy.

Single most extensive explanation of ideas from specific philosopher within the set of the analysed papers was Habermasian approach to citizenship, explicated in the paper “The Challenges of Global Citizenship for Worldview Education: The Perspective of Social Sustainability” by Miedema and Bertram-Troost (2015).

From all papers mentioned in this analysis only two papers represented some form of theoretical, conceptual papers or literature review (Miedema & Bertram-Troost, 2015; Raus, 2016). At the same time several theoretical papers did not refer to the terms analysed above or any other philosophical terms (Álvarez-García, Sureda-Negre, & Comas-Forgas, 2015; Bell, 2016; Krūmiņa & Žubenko, 2016; Reid & Horváthová, 2016; Jirgensons & Kapenieks, 2018).

Content of papers: keywords and topics. The keywords and topics of JTES papers (2015–2018) will be analysed both from the quantitative and qualitative points of view. In total, 65 articles contained 320 keywords. In comparison with the previous study the thematics of key words has considerably changed. Some groups of keywords from the previous analysis are still discernible, while others appeared at much smaller rate or
were not found at all. In the studied papers the largest group of keywords (n=67) signified
the teacher training/education, activities and properties of teachers as well as the types
of teachers. The keywords related to teacher training/education (e.g., pre-service teacher
training, teacher education, in-service training, etc.) appeared 19 times, activities and
properties of teachers (e.g., teacher efficacy, teachers’ views, effective teaching, etc.)
were mentioned 36 times, while types of teachers (e.g., EFL teachers, preschool teachers,
novice teachers, student-teachers, etc.) were observed 12 times.

The other large group (63 keywords) contained the words or phrases related to
ESD or SD. The term “education for sustainable development” was mentioned 11 times
(the largest number among all keywords), the term “sustainability” appeared seven
times, while the term “sustainable development” was mentioned six times. Also, some
specific relationships with sustainability were displayed in keywords like “education
for sustainable consumption”, “sustainability reporting”, “sustainable behaviour”,
“sustainable professional growth”, “urban sustainability”, etc.

The next largest group of keywords (n=52) was related to psychological processes/
phenomena connected with learning or behaving within educational environment. This
group, which was not observed at all in the previous study, contained the terms that
could be attributed to cognitive (e.g., knowledge, belief change, adaptive thinking,
analogical thinking, conception, etc.), emotional (e.g., emotional competence, stress
levels, etc.), and behavioural (e.g., conflict, bullying, behaviour changes, etc.) discourses.

The group of keywords reflecting the types of schools, students and education is
much smaller (n=31) and this group mostly elucidates the research sample or research
context. Types of school were mentioned 19 times, including higher education (n=6),
preschool (n=3), school (n=2), secondary school, primary school, etc. Different categories
of students were mentioned six times (children from needy families, generation Z, young-
sters, pupils, etc.). Types of education also were mentioned six times (value education,
inclusive education, entrepreneurship education, etc.). In the previous study this group
of keywords was much larger.

Next group of keywords pertains to the learning processes and outcomes (n=18),
this group also appeared for the first time and included the keywords depicting different
types of learning (e.g., autonomous learning, transformative learning, social emotional
learning, collaborative learning, self-directed learning, distance learning), different
literacies and skills.

Similarly, as in the previous analysis (JTES 2005–2014) the group of keywords
illustrating the research designs and methods described in the papers was rather small
(n=17). This group of keywords contained the terms related to quantitative research
(e.g., quantitative framework, statistics, bibliometrics), qualitative studies (participatory
action research, focus groups, teachers’ authored narratives), and more integral research
(integrated study, transdisciplinary approach, etc.).

Finally, the smallest group of keywords can be related to the area of ICT (n=13)
that demonstrates certain advance of ICT related papers in last four years of JTES. This
group of terms included such keywords as digital media, digital citizenship, e-learning,
blended e-studies, blockchain, etc.

Other keywords represented rather large and disparate group of concepts in con-
nection with educational stakeholders and their actions, elements of teaching/learning
approaches as well as keywords with general meaning (e.g., advantages, disadvantages,
dynamics, practices, transformation, etc.).
Regarding the topics of the analysed papers, they will be analysed deductively using three different frameworks: 1) classification of inductively detected topics described in paper by Pipere et al. (2015), 2) call from the UNESCO GAP (UNESCO, 2014) to explore the issues not fully resolved or even increasing during DESDS and 2) processes necessary for effective ESD (Tilbury, 2011) (collaboration, dialogue, whole system engagement, curriculum innovation, teaching/learning and active/participatory learning).

Unlike in the previous study (Pipere et al., 2015), the largest group of papers (18 or 27.7%) in the current study relates to the professional development of pre-service/in-service teachers. This group is well represented by such papers as “Modelling a Learning Journey towards Teacher Ecological Self” (Raus, 2016), “Teacher Training Programs for Gifted Education with Focus on Sustainability” (Reid & Horváthová, 2016) and “Education for Sustainable Development: The Choice of Pedagogical Approaches and Methods for the Implementation of Pedagogical Tasks in the Anthropocene Age” (Fedosejeva et al., 2018). Next topic (the most popular in the previous study), was related to the various school subjects and areas (8 or 12.3%) like English as a foreign language, physics, mathematics, etc. This group can be illustrated by the papers “Using Analogies in Teaching Physics: A Study on Latvian Teachers Views and Experience” (Jonáne, 2015) and “The Prospects of Transdisciplinary Approach to Promote Learners Cognitive Interest in Natural Science for SD” (Jurgena, Čedere, & Keviša, 2018). Well-discernible topic revealing the teachers’ views on different issues in education and ESD also was represented by eight papers, for instance, “A Suggested In-service Training Model Based on Turkish Preschool Teachers Conceptions for SD” (Kabadayi, 2016) and “An Analysis of Transformation of Teaching and Learning of Japanese Schools that Significantly Addressed Education for SD” (Ichinose, 2017). Little less prevalent group of papers that resembles the group observed in the previous study was papers describing school/educational environment, its issues and connection with ESD (six or 9.2%). This group can be exemplified by the papers “Social Equality as Groundwork for Sustainable Schooling: The Free Lunch Issue” (Kairiene & Sprindziunas, 2016) and “Gender Identity of Students and Teachers: Implications for a Sustainable Future” (Badjanova, Pipere, & Iliško, 2017). Two papers addressed the preschool education theory and practice (e.g., “Value Education in Estonian Preschool Child Care Institutions” by Ulavere and Tammik, 2017); also the authors of two papers were dealing with theoretical issues and research in pre-service/in-service TE for ESD (e.g., “Environmental Education in Pre-service Teacher Training: A Literature Review of Existing Evidence” by Álvarez-García et al., 2015). The topics of curriculum development and TE program evaluation were represented by one paper each.

Seven papers (10.8%) were hard to attribute to any group presented above as they did not contain references either to teachers or to the SD or sustainability. This number is little higher in comparison with the previous study (7.2%), however, the findings that 22 papers (33.8%) do not focus directly on teachers, while 26 papers (40%) lack the pronounced connection with ESD or SD probably could serve as some warning sign for the Journal.

In terms of five priority areas of the Global Action Programme (GAP) on ESD (UNESCO, 2014), namely, advancing policy, transforming learning and training environments, building capacities of educators and trainers, empowering and mobilizing youth and accelerating sustainable solutions at local level, the area of capacity building for educators and trainers was represented by the largest number of papers (n=27). This priority area can be illustrated by such papers as “Teacher Education for Sustainability:
The Awareness and Responsibility for Sustainability Problems” (Anšić & Tatalović Vorkapić, 2017) and “Implementing Education for Sustainable Development in Namibia: School Teachers’ Perceptions and Teaching Practices” (Anyolo, Karkkainen, & Keinonen, 2018). The next largest area of GAP represented in JTES (2015–2018) concerned the transformation of learning and training environments (n=20) as it was closely tied to the teaching discourse. This group can be illustrated by the papers related to technological environment (e.g., “Digital Citizenship in the Afterschool Space: Implications for Education for Sustainable Development” by Howard, 2015), social environment at school (e.g., “The Resolution of Conflict between Teacher and Student: Students’ Narratives” by Ciuladiene & Kairiene, 2017), cognitive environment (e.g., “The Relationship between Mathematics Teachers Teaching Approaches and 9th Grade Students Mathematical Self” by Briede, 2016). At much less rate JTES has published papers related to acceleration of sustainable solutions at local level (n=4). This group of contributions can be vividly illustrated by the paper authored by Mammadova (2017) “Education towards Urban Sustainability: Lessons Learned from the Welfare Business Models of Kanazawa City, Japan”. Papers concerning some issues pertained to the advancement of policy in relation to different aspects of SD (n=3) can be represented by the paper “Twenty-first Century Education: Transformative Education for Sustainability and Responsible Citizenship” by Bell (2016), while two papers were related to the issues of empowering and mobilizing youth (e.g., “Human Securitability: A Participatory Action Research Study Involving Novice Teachers and Youngsters” by Kravale-Paulina and Olehnovića, 2015). Thus, the charting of the topics of JTES (2015–2018) with the help of GAP demonstrates the good match between the content of papers and priority areas of this programme, since 86% of published papers correspond to one or another priority area.

Analysing the topics of 65 papers with the use of a deductive framework of processes necessary for effective ESD (Tilbury, 2011), one can notice a significantly lower level of alignment, since only about half of the papers (n=28) matched some of these processes. The largest group of papers (n=17), as expected, related to the teaching/learning: within this group two papers contained the references to the active/participatory learning, namely, paper by Martinsone and Vilciņa (2017) “Teachers’ Perceptions of Sustainability of the Social Emotional Learning Program in Latvia: A Focus Group Study” as well as paper by Korsun (2017) “The Formation of Learners’ Motivation to Study Physics in Terms of Sustainable Development of Education in Ukraine”. The next largest group, consisting of eight papers, can be associated to the whole system engagement. This concept resembles the holistic approach to the phenomena analysed in educational discourse, and, as mentioned above, 23 papers contained some references to holism. Looking for more detailed expressions of whole system engagement, it appeared that measuring sustainability competences (Besong & Holland, 2015) or views on waste management (Kolbe, 2015), looking for more holistic approaches to education for sustainable consumption (Stanszus et al., 2017), analysing teachers’ comments on ESD methods (Ichinose, 2017), or looking for the best approaches to education for urban sustainability (Mammadova, 2017) one can notice the implications to the mental wholeness (cognitive and emotional sphere), educational integration (abilities, knowledge, attitudes, dispositions, behaviours, practices), and sustainability integration (social, environmental, economic sectors). On the other hand, some papers attained to the holistic research framework (e.g., Fedosejeva et al., 2018) can also be related to the whole system approach. The
processes of collaboration and dialogue were well represented in two papers originated at Daugavpils University: Kravale-Pauliņa and Oļehnoviča (2015) elaborated on the collaboration between the researchers, novice teachers and youth within participatory action research, while Salite et al. (2016) described the transdisciplinary participatory action research as a framework for cooperation between the university and its graduates. Only one paper referred to the curriculum innovation (“Assessing the Infusion of Sustainability Principles into University Curricula” by Biasutti, De Baz, & Alshawa (2016)).

Methodological features. In this section the methodological features of the papers will be described, first, using the framework of research type, then by research genre (Borko et al., 2007). Looking back to the previous analysis, already detected problematic matters will be put in scope; also the new types of papers and the novel issues will be inspected.

Similarly as in the previous analysis, the majority of articles (49 or 75.4%) represented some type of empirical papers, 9.2% of all papers integrated both novel theoretical ideas and empirical research (e.g., Šipilova, Ostrovksa, Jermolajeva, Aleksejeva, & Oļehnovičs, 2017; Salite et al., 2016), while 15.4% of papers were conceived as theoretical elaboration on different subjects (e.g., Álvarez-García et al., 2015; Miedema & Bertram-Troost, 2015). With regard to the methodological priorities in empirical studies, exactly like in preceding exploration (Pipere et al., 2015), qualitative research was produced most often (29.2% of papers) (e.g., Carbach & Fischer, 2017; Ulavere & Tammik, 2017), followed by quantitative studies (26.2%) (e.g., Biasutti, De Baz, & Alshawa, 2016; Eslamian, Jafari, & Neyestani, 2017) and mixed methods research (20%) (e.g., Briede, 2016; Jurgena, Čedere, & Keviša, 2018), showing certain increase in comparison with the previous period of analysis (16.7%). Only four papers (6.2%) contained case studies (e.g., Lekunze & Strom, 2017) in comparison with 13.9% in the previous analysis.

Using the classification of published papers by research genre (Borko et al., 2007), it appeared that almost half of all papers (30 or 46.2%) did not align with this taxonomy as they mostly contained quantitative descriptive research using the calculation of percentage, descriptive statistics and group differences. Previously in JTES (2005ñ2014) this group of papers was encountered much less ñ only in 21.7% of papers. The largest group fitting the classification of research genre again was papers containing interpretative research (21 or 32.3%) and this group appeared to be a little larger than in the previous study (26.1%). These papers grasp the contextual meaning of phenomena and use the qualitative methodology to comprehend deeper meaning of experience and practice. For instance, Kairiene and Sprindziunas (2016) employed the interviews with students and teachers to deal with the free lunch issue in the context of sustainable schooling, Carbach and Fischer (2017) used the expert interviews to detect how the sustainability reporting process at German schools was evaluated by project managers with regard to its benefits and challenges, but Martinsone and Vīciņa (2017) selected the focus group method to expose the teachers’ perceptions of the Social Emotional Learning Program in Latvia. Much smaller group with only six papers (9.2%) was effect research well represented in paper by Aydin (2016) using quasi-experimental design to prove the advantages of Excel program in teaching basic statistics to pre-service teachers. Previously this group of papers contained a similar number of papers (8%). Participative research genre was exemplified in five papers (7.7%), for instance, Kravale-Pauliņa and Oļehnoviča (2015) depicted the Participatory Action Research organized to involve novice teachers and young people in civic initiatives for securitability in Latvia. For this group this is a
significant drop in comparison with previous 18.1%. Two papers contained the combination of participative and effect research (Bojāre, 2016; Bojāre & Skrinda, 2016), while one paper illustrated the design research (Martinsone, 2016) that previously was represented by 10.1% of papers.

Several emerging trends were detected regarding the type of papers, for example, three papers represented the literature review (Álvarez-García et al., 2015; Krūmiņa & Lübenko, 2016; Salas-Zapata, Ríos-Osorio, & Cardona-Arias, 2018); this type of papers was not encountered in the previous period (2005–2014). Also, the usage of secondary data for new empirical analysis was observed for the first time (see Sumaryanta, Mardapi, Sugiman, & Herawan, 2018).

In general, the quality of qualitative studies in the current period of analysis has improved. In regard to the papers conceived as the qualitative studies (19 papers), the primary method of qualitative data analysis was qualitative content analysis (6 papers), followed by narrative and thematic analysis (2 papers each). One paper encompassed the continuous comparative analysis, while five papers just contained the reference to qualitative data collection method or shortly described the general steps of qualitative data analysis. Only three papers did not reflect the research methodology at all, although, the results of these studies indirectly pointed to the qualitative methodology used. All authors (11 papers), detailing on qualitative data analysis, referred to some scholarly source describing the selected method of data analysis.

Out of 17 papers dealing with the quantitative data, four papers comprised the calculation of the percentage while three papers contained the average scores obtained by means of quantitative surveys. Thus, all together 41.1% of quantitative papers contained the calculation of percentage or average scores, other 10 quantitative research papers contained a statistical analysis using descriptive statistics (7 papers), ANOVA/Kruscall-Wallis test (6 papers), Student t-criteria/Mann-Whitney criteria (4 papers), Chi-square test (3 papers), correlation analysis (2 papers), contingency analysis (1 paper). The new promising feature of quantitative research papers is description of psychometric qualities of used instruments (e.g., factor analysis, IRT, reliability analysis, etc.) (5 papers). Majority of the papers containing the statistical analysis applied several procedures of data analysis. To conclude, it seems that also the overall quality of quantitative studies has improved in some aspects.

Discussion

The discussion section will render answers to three research questions, following the structure of the results section, as well as conceptual approaches to the research in TE for sustainability presented in the introduction to this paper.

Main Bibliometric Indicators (JTES, 2015–2018)

It should be reminded at the outset that period of JTES performance analysed in this presentation is about twice shorter than the previously analysed period and, therefore, some trends and dynamics well discernable in previous analysis would not be so obvious in the current report. Still, during these past four years one can notice quite significant changes in the host organization of Journal, editorial board as well as editorial team that for the first time in the history of JTES has been extended by invited experts from
abroad. The new trend that coincides with the end of UN DESD is the leadership of Journal not by one editor-in-chief, but by the team of editors. Rather short period of time from 2015 to 2018 displays the growing dynamics of invited guest editors and number of editors in general. This might designate the relocation and renewal of resources as well as building the closer relationships with UNESCO after the decade, since as the Journal is hosted by UNESCO Chair, JTES could attract the attention of larger players from the research field of TE and those associated with ESD/sustainability research. According to the recommendations in the previous paper on JTES to invite experts in the research methodology of educational research and TE, about 20 new scholars from different countries, among them several highly recognized experts, joined the Editorial Board of JTES. This is a promising sign for the further development of journal aiming toward high quality research.

Impact of Journal has obviously increased during these past years, enticing the rising interest of global community of researchers in TE for sustainability in JTES as well as improved quality of the Journal in general. In tune to the Journal’s impact, taking into account the seemingly narrow subject of JTES, also the citation rate of individual papers has grown considerably in comparison with the previous period, thus showing the conceptual value and empirical applicability of the publications in JTES.

All together, the submitted papers came from 29 (previously 26) countries representing all parts of the world. This is an important feature of the Journal illustrating its mission to publish the papers oriented toward the global inclusiveness, similarly as ESD in TE should be implemented not only in several developed countries but also in developing countries, where this movement is highly important. Possibly because of Iranian origins of several editorial team members, the number of publications from Middle East has significantly risen during these past years.

In terms of the recommendation to increase the number of large scale multi-national, multi-institutional and multidisciplinary research, the number of multi-national papers rose about three times in comparison with the previous period, however, none of these papers contained really large scale research on TE for sustainability, although, the attempts to compare the data from several countries are well discernible. The real cause of this scarcity is already mentioned in UNESCO Chair survey of the institutions of TE around the world (MacKeown & Hopkins, 2014) that found three common problems connected with implementation of ESD in TE, namely, lack of financial resources, awareness or support and human resources. Exactly the same problems might hinder the proliferation of large scale multi-national research papers on this topic. Interestingly, the situation in “general” TE research is not better. According to Sleeter (2014), her analysis of articles published in 2012 in the four TE journals with the highest impact factors in Education and Educational Research shows that only 1% of articles reported large-scale mixed-methods studies. However, positive changes in JTES have appeared in another direction – a larger number of papers are authored by different institutions from single country and as the new trend one can notice a number of transdisciplinary studies involving different type of stakeholders. This is even more promising feature as it concurrently resonates with the philosophical background in several papers discussing peculiarities and applicability of transdisciplinary research in TE. This coincidence can potentially foreground the development of transdisciplinary research approach to TE research in the nearest future.
**Philosophical background.** Since the inception of JTES it has been a forum not only for empirical research but also for the philosophical and theoretical elaborations in the field of TE for sustainability, thus, developing both the conceptual models and research paradigms on this subject. The current analysis demonstrates that almost half of published papers contain the references to philosophical conceptualizations similar to those applied in previous volumes of JTES or new ones. The significant increase in comparison with the previous period of analysis can be explained at least by attentiveness of authors to the nature of JTES publications and recognition of one or another theoretical paradigm. However, just a few authors have tried to provide some elaboration of these conceptualizations. This lack of more extensive discussion on conceptual matters in quite large number of papers possibly suggests that intention to name the philosophical theories or specific theoretical concepts could be motivated by a desire to match at least the formal features of JTES publications or deeply seated traditional positivist rationale to ground empirical research only on the most immediate particular theories leading straight to the research questions or hypothesis. The alternative explanation could be based on assumption that not all authors have proper experience with extensive theoretical conceptualizations.

Following these lines, one could apply the metaphor from the paper by Fedosejeva et al. (2018) regarding the hurried salmon evolution, that was used to evaluate the “hurried” human evolution or can be compared with pursuit of human hasty interests in other areas of life. The analysis shows that some authors have been hurried or, probably, hurried themselves to frequent and rather artificial use of the terms like holism, transdisciplinarity and complexity instead of natural growth of understanding in relation to appropriate application of these terms based on extensive theoretical reflections and practical experience. The profuse usage of philosophical terms yet does not determine the value of paper and ability of authors to integrate their philosophical approach with the context of empirical research. Couple of younger authors (doctoral students) apparently were struggling to accommodate the extensive design and vast theoretical background of their doctoral theses in pages allowed for the paper. The ordered semantic waves from Maton’s Legitimation Code Theory (Maton, 2014) are rarely noticeable, some authors create the huge “cunami” of theoretical concepts, rising high above the surface and threatening to trap the readers in deep ocean of ambiguity.

The philosophical terms in scientific papers should not be used deliberately, without clear definition, designation of the specific context of usage and detailed explanation. The authors should avoid from the frequent usage of these terms in contexts not yet fully elaborated in theory, which would ask for another paper to explain the theoretical underpinnings of newly introduced term in detail. The sufficient attention should be paid to differentiation between the usage of philosophical terms in their original meaning (e.g., attributed to models, systems) or as simple adjective (e.g., complex as more catchy than entangled or holistic as more up-to-date than whole) without any deeper meaning. As the scrutiny of publications in the present and previous analyses shows, the same thing already has happened with the terms “sustainability” and “sustainable”. The authors feel entitled to use the adjective “sustainable” in relation to any noun like writing, timetable, etc., not going into the detailed explanation what is meant by this adjective and if the subject’s properties can be really described within the discourse of philosophical and educational contextualization of “sustainability”.
The analysis of philosophical terms used in the analysed papers demonstrates that parallely with the terms already encountered in the previous period (holism, complexity, anthropocentric/non-anthropocentric divide, humanistic philosphy) authors have introduced some new concepts like Anthropocene, transdisciplinarity and ontology. It seems that holistic discourse recently has become self-evident and inavoidable for the interpretation of ESD/sustainable education research in a wide scope of areas. However, it is rather hard to find the exact explanations, definitions of holism or references to previously created theories/ empirical publications, as authors use this term or expressions with this term quite deliberately and, as it has already been mentioned above, attribute it to the large scope of diverse phenomena. The concept of “complexity” was not used so often as holism, though, it seems that this concept was also moving toward its peak time. Yet, the vague usage of this term probably indicates the unintentional wish of some authors for several phenomena really been complex (in original theoretical sense), although they do not provide deeper argumentation and justification for the existence of these “complex” entities.

Pondering on the significant decrease in the usage of anthropocentric/non-anthropocentric divide or critique of anthropocentrism in the analysed papers, it seems that this term has possibly been “substituted” by a new one. Two from three papers, mentioning this term most often, now also contain the numerous references to the concept of Anthropocene, using it as a framework for metaphysical and ontological explanation of unsustainability in society, science, and education. Fedosejeva et al. (2018) suggest that Anthropocene has “now become a phenomenon that demonstrates the unsustainable quality of the ecological, cultural and social relationship of a human being” (p. 158). This “advance of Anthropocene” seems to demonstrate certain shift in thinking from a more philosophically based trend designating the abstract domination of human beings (anthropocentrism) to a more strictly geologically delineated “title” for physical and mental space and time where humans live now (Anthropocene). Lack of references to humanism or humanistic education probably illustrates the current trends toward other, more urgent theories or implicates the impending connection of humanism with anthropocentrism in sustainability discourse (Iovino, 2010). It seems that humanistic philosophy, still sometimes applied in traditional learning context, currently has transformed into holistic education and approach (especially in the context of environmental education and ESD) since many important principles of humanistic education (self-regulated learning, integration of rational and emotional, teacher as facilitator, etc.) actually are well discernible in holistic education theory and movement. Gradual emergence of transdisciplinarity not only in the content of published reports, but also in terms of institutional and disciplinary affiliation of authors potentially forecasts the situation in near future when studies conducted within “separated” disciplines will be just one of options to explore the world and its complex problems (Dodig-Crnkovic et al., 2017; McGregor, 2004).

**Content of papers: keywords and topics.** The changes in the thematics of keywords seem to be sufficiently aligned with the changes in the topics of papers. Two large groups of keywords related to TE/teachers and ESD/sustainability were still well discernible among the keywords, however, this study detected the new large group of keywords related to the psychological processes/phenomena designating learning or behaving within educational environment. One of the possible explanations of this new trend could be the further development of transdisciplinary research approach applied to the teacher professional practice, including also the myriades of psychological phenomena to be
studied in order to reach sustainability and somehow neglected in the previous period of analysis. Also, the group of keywords related to learning processes and outcomes appears for the first time and includes keywords depicting different types of learning.

Interestingly that in the previous study the group of keywords containing types of schools, students and education was much larger, thus indicating certain reduction in the diversity of educational context reflected in the given period of time. The presence of transdisciplinary approach could be also observed in the rising number of keywords designating different educational stakeholders and their actions.

Two largest groups of topics relate to the professional development of pre-service/in-service teachers and various school subjects and areas, thus acknowledging more focused content of papers in terms of TE and teaching. Less represented groups of topics, congruent with smaller groups revealed in the previous study, were associated with teachers’ views on different issues in education and ESD and school/educational environment, its issues and connection with ESD. Very small number of papers were devoted to preschool education theory and practice, theoretical issues and research in pre-service/in-service TE for ESD, curriculum development and TE program evaluation. Thus, it seems that although three discerned groups of topics were somehow connected with ESD, the largest group still focused on general issues of TE and teaching different subjects. Dealing with the recommendation to decrease the number of papers only marginally connected with TE for sustainability has not been quite successful, since the number of such papers has slightly risen. Besides, rather high number of papers was discovered focusing neither on teachers nor on ESD/SD. It was observed that some of these authors used the terms like ESD, sustainable education, sustainability or SD in the title of their papers, while in the content of papers these terms were not properly elaborated or were used, as it was enticed before, only as the “imitation” of conceptual deepness (e.g., using “sustainability” instead of “able to be maintained”, “kept going”, or “continuous, unending, feasible, viable”).

A more positive picture appears in charting the topics of JTES (2015–2018) with the help of GAP (UNESCO, 2014). High alignment between the content of papers and priority areas of GAP testifies to the versatility and up-to-date view of authors on topics related to ESD. It was not surprising that the area of capacity building for educators and trainers was represented by the largest number of papers since the journal focuses on the teachers as the main population of study and follows their path starting from student teachers education and training to the most advanced forms of teacher professional development. The next largest area of GAP represented in JTES concerns the transformation of learning and training environments; it is also closely linked to teaching discourse and these papers were mostly related to technological environment, social environment at school or cognitive environment. Considerably smaller number of papers associated with three other priority areas, namely, sustainable solutions at local level, advancement of policy and empowering and mobilizing youth could be excused by the topic area of JTES that at the first glance might not allow for the specific focus on work within local community, in collaboration with politicians or youth.

Much lower alignment was found using the third analytical framework of the topics of papers – processes necessary for effective ESD (Tilbury, 2011). Barely half of the papers matched precisely one or another of these processes. The largest emphasis, in line with the main area of JTES, has been put on the process of teaching/learning including
also some papers related to active/participatory learning. The process of the whole system engagement suggested by Tilbury (2011) was obviously displayed through the holistic approach to different phenomena (already discussed above), like measuring sustainability competences, analysing views on waste management, searching for educational approaches to sustainable consumption, etc. The implications to the mental wholeness (cognitive and emotional sphere), educational integration (abilities, knowledge, attitudes, dispositions, behaviours, practices), and sustainability integration (social, environmental, economic sectors) reveal the deeply embedded notion of whole system approach in the “cognitive maps” of the authors. Although the processes of collaboration and dialogue as well as curriculum innovation were elaborated only in three papers, the collaborative and dialogical relationships were implicit in content and methodological foundations of much larger number of papers.

**Methodological features.** Distribution of articles by their research type appeared to be very similar to the previous analysis, with majority of papers representing empirical studies and much smaller groups of theoretical papers and contributions integrating specific theoretical elaborations and empirical research. This proportion is almost identical to the one discovered by Sleeter (2014) in her analytical review on papers in TE journals with the highest impact factors. In terms of methodological preferences in empirical studies, similarly as in the previous study, the qualitative studies were observed more often than quantitative explorations, though, currently the difference in numbers seems to be decreasing and restoring the balance between these approaches. Smallest group of studies, though, showing certain increase in comparison with the previous study, was represented by mixed methods research, probably attaining the attempts of the authors to choose more sophisticated research designs. In comparison with results in Sleeter (2014), where mixed methods studies represented only 4% of all sample, in the current study this type of research was encountered five times more. However, it should be admitted that in the present set of papers several authors claiming to describe the mixed method study provided mostly the quantitative results. Qualitative part of these studies was either very small, missed the specific details or was completely omitted. Some authors who used the action research or mixed methods research approach described the research methodology and results quite superficially – an issue frequently described in methodological papers on these designs (i.e., Pluye & Hong, 2014). In a similar vein, for some studies the originally intended research design was too vast and extensive to be properly described in one paper. Thus, it seems that although the quantity of mixed methods research is slowly rising, the quality of this type of research still asks for some improvement, especially in terms of the correspondence between the research idea and conducted research study.

Contrary to the previously exposed idea that case studies would possibly be submitted in large numbers, since the end of UN DESD would ensure the proper conditions for such studies (in terms of collecting rich experience and having sufficient time for implementation), only four papers (from 65) contained case studies – barely half of the contributions discovered in the previous analysis. In study by Sleeter (2014) the small-scale qualitative case studies were reported in 30% of the studied papers. It could be assumed that previously in some countries case studies were implicitly used as the trademarks of TE success within a framework of formally institutionalized UN DESD guidelines, while after the Decade the need to trumpet the advance of certain institutions has also decreased to some extent.
In terms of research genre, the prevalence and increase of small scale quantitative descriptive studies (mostly survey research), although, coinciding with the findings in Sleeter (2014), testify to the limited resources and yet undiscovered scientific potential of TE researchers in the field of ESD/sustainability. Some justification of this trend might be searched for in the specific topic of publications, as it has been recognized that study of some novel and previously unexplored topic should begin with smaller scale pilot studies, quantitative or qualitative in their nature, thus collecting the necessary contextual information for the more extensive investigations. Considering the large number of countries (represented in recent volumes of JTES) that just recently joined the global movement of TE toward ESD/sustainability, the large number of small “pilot” studies coming from these countries is also quite reasonable feature. The group of interpretative research was a little larger than in the previous study that showed the gradual growth of recognition for this research genre among the authors of JTES. The number of effect research papers stayed as small as in the previous study, while the drop in participative research and design research could be possibly explained both by the countries – newcomers to the community of researchers in the field of TE for sustainability and by already mentioned lack of resources and potential for these conceptually and methodologically more sophisticated research genres. The first time appeared literature reviews and secondary data analysis illustrate the growing capacity of research field of TE for sustainability.

Conclusions and Recommendations

At the end, main conclusions, limitations, suggestions for the further research and prospective development of the Journal will be provided together with some implications for the potential authors of JTES. The inclusive summary of the previous analysis would be the appropriate matter to provide the answers to the research questions and finalise this paper. Thus, there are several significant changes in the main bibliometric indicators featuring papers published in JTES (2015–2018) in comparison with the papers published from 2005 to 2014. The impact of the Journal is obviously increased and citation rate of the Journal and individual papers have grown considerably. Modifications have been observed also in the host organization of the Journal, Editorial Board as well as in editorial team (invited experts from abroad) with the intention to improve the quality and quantity of submissions. Maintaining the multinational character of authorship, the main focus of submissions has shifted from the North of Europe to the Central and Southern part of Europe, as well as to the Middle East. The number of multinational papers, papers authored by different institutions from single country and transdisciplinary studies involving different types of stakeholders has risen to some extent, thus designating the advance of contemporary trends in research collaboration.

The certain changes showing both improvement and some issues have been observed also in the research paradigms. Speaking about the philosophical background accomplished in published papers, almost half of published papers contain the references to philosophical conceptualizations. Parallely with the terms encountered in the previous period (holism, complexity, anthropocentric/non-anthropocentric divide, humanistic philosophy) some new concepts like Anthropocene, transdisciplinarity and ontology appeared for the first time. Holistic discourse has been applied as natural and rightful part of research in TE for sustainability, anthropocentrism and its critique have been
substituted by the concept of Anthropocene, while the usage of complexity has been encountered more often than in the previous study, though, in rather vague expressions yet. Humanistic philosophy, sometimes still applicable in traditional learning context, currently has transformed into holistic education and approach. The gradual emergence of transdisciplinarity not only in the content of published reports, but also in the research approaches in submitted papers can also be evaluated as quite positive trend.

As to the quality and quantity of keywords and topics, two large groups of keywords related to TE/teachers and ESD/sustainability were still noticeable, while the group designating the types of schools, students, and education appeared to be much smaller. Two new groups have emerged for the first time, namely, the psychological processes/phenomena designating learning or behaving within educational environment and learning processes and outcomes. Thus, while the keywords replicating the “title” topic of JTES are still dominating, larger emphasis has been put on the internal psychological processes of students in educational environment, especially, those, connected with learning. Although three discerned groups of topics were connected with ESD (teachers’ views on different issues in education/ESD, educational environment, its issues and connection with ESD, and theoretical issues and research in pre-service/in-service TE for ESD), the largest group of papers still focuses on general issues of TE and teaching different subjects. As the positive feature, one can notice the high alignment between the content of papers and priority areas of GAP, the dominant priority area being the capacity building for educators and trainers. Analytical framework for the topics of papers – processes necessary for effective ESD was applied with much less success as barely half of the papers matched precisely one or another of these processes, the largest emphasis was put on the process of teaching/learning including also some papers related to active/participatory learning.

Considering the methodological features of papers, distribution of articles by their research type is very similar to the previous analysis, with majority of papers representing empirical studies and much smaller groups of theoretical papers and contributions integrating specific theoretical elaborations and empirical research. The analysis shows the balance of quantitative and qualitative studies, the growth of mixed method studies, yet not with the perfect quality, decreasing number of case studies and the prevalence and increase of small scale quantitative descriptive studies (mostly survey research). The group of interpretative research was a little larger than in the previous study, while the number of effect study stayed as small as in the previous analysis. Participative research and design research have been represented with smaller numbers than in the previous period of JTES.

Focusing on the recommendations and suggestions elaborated in the previous study (Pipere et al., 2015), it seems that, to some extent, all of them have been implemented and considered in the bibliometric characteristics of the Journal and its publications. Thus, the Journal has maintained the diversity of research performed in different parts of the world and preserved the unique features of publications, in general, maintaining the good standards of academic writing. However, there seems to be a large potential for the improvement of academic writing in terms of submissions coming from the countries beginning their general movement toward sustainability-oriented TE after the end of UN DESD.

The number of multi-national and multi-institutional research has significantly risen, though, this is not quite large-scale research. Also, the new transdisciplinary
approach has been introduced not only in authorship of papers representing various stakeholders, but also in the philosophical background of the papers.

In general, the quality of methodological dimensions of contributions in these past four years of JTES has slightly improved. This can be proved by several indications in relation to both quantitative and qualitative studies like more appropriate and detailed presentation of qualitative data analysis methods, increasing number and quality of more advanced statistical data analysis methods and description of psychometric qualities of used instruments. Regarding the mixed methods studies, although the quantity of research has increased, the quality of submissions needs to be improved yet.

The recommendation to strengthen the Editorial Board of JTES seems to be even overachieved since during the analysed period radical changes have been made not only in the Editorial Board that has been expanded by a large number of new qualified members, but also in host organization and editorial team of JTES. The Journal is hosted now by the UNESCO Chair and growing numbers of editorial team and Editorial Board members that hopefully will serve to the further development of JTES.

Considering the Journal’s response to the call from the UNESCO GAP (UNESCO, 2014) to focus research on issues not fully resolved or even increasing during DESD, this study shows the very close alignment between the content of JTES’ (2015–2018) papers and priority areas of GAP, the two dominant priority areas being the capacity building for educators and trainers and transformation of learning and training environments.

The suggestion to decrease the number of papers only marginally connected with TE for sustainability was not yet implemented to a full extent, since the number of such papers has slightly risen in past four years.

Several limitations should be admitted for this study: First of all, since the analysed period of time of JTES is much shorter than the previous one and the global context has changed, the interpretation of differences between those two periods should not be done in straightforward manner. Moreover, this paper lacks a more detailed analysis for the theoretical underpinnings of research on TE for sustainability that could make it look more monolithic, though much longer. Subjectivity still prevails in performing the coding for bibliometric analysis and interpretation of research paradigms, since the analysis was completed by the author, having rich experience with JTES as the editor-in-chief, guest editor, Editorial Board member, and author. In comparison with the previous paper, this paper does not include the analysis of all those criteria interpreted in the previous presentation, focusing only on the main ones. However, one limitation mentioned in the previous paper – lack of deeper exploration of sample articles from JTES, currently has been partly eliminated by a more extensive analysis of philosophical background of papers, providing references and citations from papers.

Concluding the work on this analysis, some suggestions would help to better envision the avenues for exploration while assisting in further development of research and publication on TE for sustainability. For instance, a more detailed analysis of sample articles from JTES to provide suggestions for high quality academic writing and elaborated examples for some research themes could also be of interest for potential authors of the Journal. Also, the potential authors of next JTES reviews would focus the whole paper either on the bibliometric analysis or analysis of research paradigm for the Journal. Other enticing possibility would be the comparison of bibliometric criteria or research paradigms coming from different parts of the world or further development of research
paradigm analysis, using qualitative content analysis and providing sample articles that illustrate a peculiar research paradigm.

The conducted study together with provided conclusions leads to several recommendations to the Journals’ editorial team and also to the potential authors of JTES. The first group of recommendations could be more appropriate for the editors and reviewers of journal, however, some of these suggestions could be of interest to the authors of JTES. Thus, it seems appropriate to suggest that in future JTES should:

- pursue the regular practice of inviting guest-editors and publishing special volumes, thus enhancing the geography of publications and quality of submissions;
- keep the general orientation of papers in line with the normative guidelines by UNESCO, though, considering the unique and specific niche of the Journal;
- focus more on publishing papers clearly related to the topic of TE for sustainability, targeting both the teachers and/or their work environment and ESD issues in a single paper;
- support the development of multi-national, multi-institutional, multidisciplinary, interdisciplinary and transdisciplinary research enhancing the scale of such research;
- improve the quality of academic writing — mostly for the submissions coming from the countries beginning their general movement toward sustainability-oriented TE after the end of UN DESD;
- further the quality of methodological dimensions of published papers, attracting the authors with more sophisticated research designs, especially with well-designed large-scale mixed methods research, advancing the genres of effects research, design research and participative research.

Following suggestions based on the analysis provided in this paper could be especially helpful for individual authors:

- In terms of research genre, the number of small-scale quantitative descriptive studies (mostly survey research) need to be balanced with more advanced research genres;
- The research collaboration should be implemented more actively, for instance, researchers from different geographic locations or higher education institutions, implementing the accurate planning and coordinating, could perform linked small-scale studies using the same methodological approaches (Sleeter, 2014).
- Deep understanding of educational philosophy and theoretical conceptualization in education and pedagogy would help to make them more explicit in writing about TE for sustainability.
- The philosophical/theoretical concepts should be used with larger awareness, providing clear definitions and description of the specific context of usage.
- The integration of terms like ESD, sustainable education, sustainability or SD in the title of paper obliges the authors to reveal the theoretical background of used terms and specific context of their usage in the given paper.
- Whatever research design is used in the study, it needs to be properly described; also, it is better to plan for smaller research with its subsequent adequate reflection in a paper rather than suggesting the sophisticated research design at the outset, being able to illustrate only small part of the conducted study. The paper should demonstrate the congruence between the research idea and conducted/described study.
Sometimes to start something from the scratch is more easier than to maintain the quality and quantity of the process in a longer period of time. Thus, in future JTES needs to build on the past success, so that the good start is not lost. Hopefully, this analysis and recommendations will be advantageous for JTES editorial team and Editorial Board members as well as the potential authors of JTES, thus supporting the advancement of the whole research field of TE for sustainability in its mission to explore for the future.

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Detecting a Sustainable Mindset through Using Content Analysis of Teacher-produced Learning Journals

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Abstract

Having developed and piloted a professional development blended learning course for teachers of home economics with the purpose of promoting a sustainable mindset in their students, we used the written learning journals by the teachers during the 15-week course to detect various aspects of a sustainable mindset, which could be attributed to the course. We assumed that the learning journals of 19 participants might reveal reflections on sustainability, the pedagogy of sustainability, a positive association between sustainability and the pedagogy of sustainability, and the development of a sustainable mindset over the period of the course. The analysis confirmed that the participants reflected a great deal on learning and sustainability as the course progressed; revealing that a positive link between teaching practice and sustainability can be observed. However, the analysis also indicated some important concepts that might have been under-emphasised in the course.

Keywords: sustainable mindset, blended learning course, home economics teachers, learning journals, strong sustainability.

Introduction

It was during 2018 that 35 teachers, who were recruited globally, participated in a teacher training course offered by the ProfESus European project. With the aim of ‘discovering a sustainable mindset for future-oriented professionals in guest-oriented businesses’, the project was to enable home economics teachers to train their students to adopt sustainable practices. The main intention was to help the students of these teachers to spread sustainable home economics practices into their personal and future working lives. The course was blended, consisting of an introduction, called Module 1,
which included face-to-face discussions over a week in Austria, followed by Module 2 that comprised 7 units over 8 weeks exploring how selected approaches such as case studies and transformative pedagogy could promote competency in sustainable work practices. Moreover, there was also Module 3, which was another online module with the purpose of planning and executing a lesson or series of lessons over 5 weeks. Finally, Module 4 was designed in which the last face-to-face discussions were run during a week in Finland. In Module 4, the participants assessed their lesson projects and made plans for their future classroom practice. A central aim of the course was to promote a sustainable mindset both in the teachers and their students.

Learning journals were used as a part of 8 ECVET/ECTS credit course (ProfESus, online) for several reasons. One main reason is that the journals can be sources of feedback on the quality of the pilot course. Furthermore, one pedagogical reason for asking the teachers to complete the learning journals is that they can be of great value to the teachers when they are thinking of implementing new methods (Bashan & Holsblat, 2017; Butcher & Eldridge, 1990; Coll & Coll, 2018; Wallin & Adawi, 2018). Additionally, one more reason for employing learning journals as a part of the learning strategy, in the current study, was to reveal a sustainable mindset in our teacher-participants and their students. The value of using teacher reflection journals to discern sustainable values and dispositions specifically has also been shown by using manual coding methods (Khazaeenezhad, Tavakoli & Amirian, 2018). Since a mindset is an abstract term, we predicted that the journals would both prompt and reveal the depth and nature of our learners’ sustainable mindsets.

When delving into the concepts of teacher training courses, one can figure out that the three central concepts in the ProfESus teacher training course are green pedagogy (Forstner-Ebhart & Linder, 2017; UCAEP, 2018; Wogowitsch, 2013), sustainability competencies (Fuertes-Camacho et al., 2019; Lambrechts et al., 2013; Ploum et al., 2018; Rauch & Steiner, 2013), and strong sustainability (Holt, 2012, Ikerd et al., 2014, Starchan, 2009; Sterling, 2004; Sterling 2001). These concepts were combined in a sustainable mindset. Green pedagogy is a kind of pedagogy developed by the University College for Agricultural and Environmental Pedagogy (Wogowitsch, 2013) in Vienna. It is mostly written about in German, to date. The sustainability competencies are based on the standard definition of competencies as comprising knowledge, skills, and attitudes in which the attitude component is further subdivided into personal attitudes, as revealed by values, and ability and willingness to collaborate (Rauch & Steiner, 2013). This four-dimensional model of competence is implemented in the work of the United Nations in sustainability. It is best exemplified by the UNECE competencies (UNECE, 2011). Strong sustainability refers to embedded practice of sustainable competencies during scheduled learning activities showing understanding that the benefits of nature are irreplaceable and that the entire economy is reliant on society, which, in turn, is entirely dependent on the environment. Hence, in examining the learning journals of our teacher-participants, we were expecting to find evidence of all three of these central concepts.

To conduct this study, we used the Leximancer content analysis software which automatically processes any text corpus fed into it. The software goes beyond counting of keywords as it is analysing which concepts are close in meaning in order to create multi-word thesaurus categories and determine their relative importance. The software also analyses how closely linked each concept is to every other significant concept in the corpus. It should, therefore, be able to reveal in an impartial manner how the concepts
which are written about in the learning journals are connected to each other; moreover, whether this is a negative or positive connection. This software has been previously used to analyse learning diaries (Letch, 2012). We judged that the automation inherent in the software would overcome any bias which might occur if we hand-coded the text as is necessary when using a tool such as NVivo. This distance was required since the authors were heavily involved in the development and supervision of the course under investigation. Given the features of the software, we thought that it could be used to answer the following questions which are in an increasing order of complexity:

1. Does the ProfESus course lead its participants to reflect on sustainability?
2. Does the ProfESus course lead its participants to reflect on the pedagogy of sustainability?
3. Does the ProfESus course lead its participants to reflect positively on sustainability?
4. Does the ProfESus course lead its participants to reflect on strong sustainability that increases over the lifetime of the course?

We believed that by obtaining responses to these questions, the developers of the ProfESus course could improve its quality.

**Methodology**

The ProfESus course is a 15-week and four-module blended learning course in which participants, mostly teachers or student-teachers, are required to keep learning journals for the first 14 weeks (representing nine entries and three modules). The corpus used in this analysis draws on the learning journals of 19 participants, not all of whom completed journals for the whole 14-week period but they completed at least seven out of the nine main required entries. Thirty-five participants enrolled on the course, and of those, 24 completed the course, and 19 both submitted at least seven journal entries and gave permission to use the texts. It is worth mentioning while nine entries covered three of the four modules, seven entries covered at minimum seven weeks of the 15 weeks mostly centred on Module 2, an exploration of sustainable pedagogies and how these support the main issues of sustainable development related to home economics. Participants were guided in what to write about in their learning journals with questions relating to the module or unit it was included in. However, participants were always free to write about whatever they thought was relevant. The learning journals were not visible to the other course participants, only to tutors; hence, they were relatively private and could be expected to reflect participants’ honest opinions. Some examples of the prompts that participants were given for writing their learning journals are shown below. It relates to Unit 2.5 of Module 2 which focused on strategic thinking. Once again, it should be noted that the participants were free to respond to as many or as few of the prompts as they wished.

*You tried out the Zero Waste Challenge. Reflect on how this made you feel, your successes and failures and what strategies you found were most effective. Think about the value of an eco-labelling exercise for your students either based around your own institution or based on investigating local hospitality organisations. What benefits would there be for your students?*
Have you tried anything out or altered your practice either in your private, professional or pedagogical activities as a result of something you learned in this unit?

Describe any ideas this unit has given you for your Module 3 project.

The type of data analysed by using the Leximancer software was the text which the participants wrote in their learning journals. Videos and images were omitted as was the response of tutors to the learning journal entries. Furthermore, the copied texts from elsewhere were excluded. As an example, many participants copied the learning activity plan template into their journals at some point and these types of copied texts were excluded from the analysis so that what remained was entirely the participants’ own words. The participants were not limited regarding the text length, but they were generally advised to spend about an hour on preparing their journal entry. Therefore, the length of each entry varied widely. On average, however, the length was about two or three paragraphs for each entry.

The set of learning journals used in the analysis could be easily delineated according to the participants and the distance into the course that each learning journal entry related to. The Leximancer tool was used to determine whether a sustainable mindset could be inferred from the learning journals.

Limitations of Using Text Analysis

We used the Leximancer text mining software to analyse the content of the learning diaries. One challenge in this regard was that except for one of the participants, all were using English as a Second Language. Therefore, English was not always used correctly as for example *grose* was used instead of *gross*. In preparing the texts for analysis, the researchers corrected the obvious spelling errors or abbreviations so that the software did not overlook related concepts. The most common example was ‘SUS’ which was often used in place of sustainable or sustainability. It should be noted that three of the participants included images and videos in their learning diaries which were omitted during the analysis since the software is not able to process other media except for written texts. However, since the participants used text overwhelmingly in their learning diaries, it was not considered that a great deal was lost by this omission.

It is possible for the Leximancer software to give slightly different results from the same corpus of texts, so care must be taken not to over-analyse the results. This variation is not significantly greater than the coder differences when content analysis is performed manually (Sotiriadou, 2014).

Results and Discussion

The first research question which was addressed was “Does the ProfESus course lead its participants to reflect on sustainability?”

Since the aim of the course was to prompt teachers of home economics to embed sustainable work practices in their students, we would expect that participating in the ProfESus course would lead to much reflection on the concept of sustainability and related concepts.
When processing a corpus of text through the text mining software, the first result is an automatically generated list of the main themes included in the corpus and a map showing how the themes are linked. The map for the complete collection of eligible learning journals is shown below in Figure 1.

Figure 1. The map of themes (large text) and concepts (smaller text) generated by the learning journal texts

The software identified 55 concepts composing thirteen overall themes. Since the participants are teachers, student-teachers or trainers, it is not surprising that the most frequently used concepts include students, time, school, teaching and course. There are 5 sustainability related concepts in the top 20 concepts including sustainable, sustainability, waste, food and values.

This is a result which we would not expect in a random collection of learning journals for educators not selected for sustainability. We can compare these results to a similar processing in the same software of three documents that are specifically related to sustainability education, namely “Future Fit” (Sterling, 2012), “Learning for the Future” (UNECE, 2011), and the English version of “Green Pedagogy” (UCAEP, 2018) that were key texts used in the ProfESus project on the topic of sustainable education pedagogy. Comparing the top 20 key concepts of the learning journals to the top 20 concepts in the three key texts, one can observe that eight key concepts appear in both lists, and of those only two, sustainable and sustainability, are directly connected to the
main aim of the course. However, the two lists are clearly concerned with teaching and learning, even if the dominant concepts are expressed differently, such as course in the learning journal concept list and education in the key text list. The comparison indicates that the participants of the ProfESus course were writing about sustainability to the same degree when compared to the authors of our key texts. Therefore, we can conclude that the course did lead to the participants’ engaging in the idea of sustainability.

The second question which was addressed was “Does the ProfESus course lead its participants to reflect on the pedagogy of sustainability?” The main theme map generated by the Leximancer tool in Figure 1 illustrates a very strong focus on learning connected with sustainability, i.e. all concepts are related either to learning or to sustainability and nothing else. The largest and reddest sphere indicates the strongest theme of the corpus, which in this case, is students. The distance between each sphere shows how tightly or loosely connected each concept is to the others identified. Thus, time is tightly connected to sustainability, but it is very loosely connected to the concept of waste. We speculate that this means that teachers feel they lack time to implement sustainable solutions and the software can confirm this by running a query to find out examples in the texts where the concepts of time and sustainability were used in close proximity. Examples 1 and 2 demonstrate this issue.

Example 1
There is not enough time to teach core elements integrating sustainability.

Example 2
Only because the amount of the time I have to teach sustainability is very limited.

The next step is to find out if the concepts of sustainability and learning are strongly linked. Sustainability in the context of education and pedagogy is the focus of the course. We start by exploring what the concepts of sustainable and sustainability are most strongly linked to. Choosing sustainable as a concept, we find seven of the concepts associated with sustainable which are associated unequivocally to education and learning. Those concepts are teaching, teachers, students, course, education, school and learning, while another three are most likely to relate to an educational context: thinking, idea, topic. There is a possible connection to other sustainable topics such as world, change, better, future and environment. The most noteworthy result of this search is that the most tightly connected concept with sustainable is mindset (see also Figure 1). This is a clear indication that the course has succeeded in linking the topic of sustainability with the need for competence in sustainability to be connected to a mindset. This was a major aim of the course, i.e. the knowledge of sustainability is not sufficient on its own but must be accompanied by an associated mindset. Finally, we can check the connections in these areas by looking at extracts from the learning journal texts that were deemed by the software to link the two concepts. If we take teaching as an example of a clear educational concept, then, here is an instance of where the concept of teaching was linked to the concept of sustainable.

Extract 1
I’m constantly considering whether sustainable development has been taken into account in teaching enough?
We can also see how sustainable and mindset occurred together.

Extract 2
The man who showed us the rooms was a good role model of having a sustainable mindset or act like having it.

We can test whether the high ranking of thinking in association with sustainable is educational or not.

Extract 3
Anyway, sustainable thinking seems to be all over, wherever I go.

Therefore, the participants did write about sustainability in relation to learning. We can examine whether this is a definite link to show that they were reflecting on the pedagogy of sustainability by analysing a few more sustainability concepts from the map of main themes. The specific concept of sustainability shows a tighter connection to pedagogical concepts. As with the concept of sustainable, the concept of sustainability is closely linked to teaching and learning. Two of the concepts associated with sustainability related unequivocally to education and learning: teacher and course, while another five are most likely to relate to an educational context: thinking, idea, project, group and topic. In addition, there are a few concepts directly linked to sustainability, including future, world and better. The following extract shows an example of how sustainability is linked with teacher.

Extract 4
For me this is what sustainability is all about. It has the 3 pillars in it, as a teacher or studying to become an educator you have to understand and want to live sustainably.

In the ProfESus project, we emphasised the importance of sustainable competencies to indicate that it was important to consider not just knowledge about sustainability but also skills and attitudes, the latter divided into collaborative skills and personal values, to implement sustainability. We used the concept of competence as defined by UNECE (2011). This definition and the fact that the ProfESus course was called ‘discovering a sustainable mindset’ made it relevant to examine the two concepts of values and mindset as relevant results from the content analysis.

Values

The concept of values is one of the main themes in the learning journals with 92 hits which shows that the message that sustainability is not just about knowledge has broken through. Values are important components of the sustainable competency model applied in the ProfESus course (the others being knowledge about sustainability, sustainable skills and collaborative abilities). Consequently, this shows that evidence of the necessity for sustainable competencies is visible, but we do not know the extent to which the full competency model has been embedded. Extract 5 shows this issue.

Extract 5
Therefore, despite the conflict, I believe no matter what personal/individual values reflect, everyone still has an opportunity and a role to play towards promoting sustain-
ability related issues and practices. It is also good that members get to know and understand their values.

Mindset

The concept of mindset is critical to training students to act sustainably by default. The concept mindset occurs most often in connection with sustainable and, secondly, with the word change and several times in connection with teaching and learning. Extract 6 indicates the connection.

Extract 6
This week I have taken part in many discussions about zero-waste goal and about sustainable mindset vision.

This is encouraging as it supports the conclusion that sustainability has been successfully linked with the importance of mindset in the minds of the participants. Thus, a closer examination of the four most prominent sustainability concepts shows its close association with pedagogical concepts. Moreover, it demonstrates that the two themes have been linked in the learning journals.

The third research question which was addressed was “Does the ProfESus course lead to positive reflection on sustainability?” It is difficult to interpret the results of the sentiment analysis in the content analysis tool because there are several favourable and unfavourable interpretations. In a learning diary, individuals can be positive or negative about the course. Moreover, they can also be positive about the increasing feeling of agency in the face of intractable sustainability challenges. It is conceivable that individuals can be positive about the course and negative about their ability to effect change in favour of sustainability. It is possible, but unlikely, that somebody will be negative about the course but positive about his/her ability to effect change in favour of sustainability. The most likely outcome if you were feeling negative about the course would be to drop out at an early stage. There were dropouts on several grounds, including insufficient time, lack of confidence in using the course technology, and lack of formality. A few of the participants were committed to the course as a part of their degree and they could have been negative, but they continued. However, the majority of the participants that completed the course did so because they thought it was worthwhile.

The analysis shows a strong favourable sentiment (255 instances) and a low unfavourable sentiment (74 instances) across the 19 learner journals. The following examples are favourable and unfavourable comments:

Extract 7
Changing body and cleaning products to eco-friendlier alternative because you don’t want to harm yourself is a good thing. Small steps count (favourable)

Extract 8
I have a very open classroom where the pupils are free to disagree and discuss all topics. But starting with provocation is perhaps a good way to get attention (favourable)

Extract 9
They want to create an end plastic pollution in XXX. I see this problem first hand here on our beach (unfavourable).
Detecting a Sustainable Mindset through Using Content Analysis

Extract 10
Consumers are being ‘forced’ to shop and therefore accept supermarket policies, however ridiculous they might be. Multi-buy offers and XXL packs are becoming an everyday part of shopping (unfavourable).

It seems that the unfavourable comments are not directed at the course, but they are directed at seemingly unsolvable sustainability problems. Extract 11 shows a failure in the classroom that can be used by the students as a positive learning point while extract 12 reflects on the course participant’s colleagues.

Extract 11
So there was too much sugar in the dough that it burned into the waffle-iron. This was an example of a failure, from which the pupils did learn in action why to go with the recipe, at least mostly.

Extract 12
Areas which are difficult to change? The narrow-mindedness and inability to think outside the box amongst some of my colleagues can sometimes be frustrating.

Hence, it seems that even the unfavourable comments can be seen as positive for the course. Of the 74 extracts, only three were mild criticism of the course. Extract 13 is an example of such mild criticism.

Extract 13
I did enjoy this group work and activity, but just had one critique. While I do think it is great to think of the negative and what can go wrong, it is also very important to find solutions.

One of the important concepts of green pedagogy is that students should also work towards realistic solutions, so this critique was addressed in the course at a later stage.

We can therefore say that there is a strong positive association between sustainability and educational concepts as a result of the ProfESus course although the exact nature of this positive mood is less clear.

The final question which was addressed in the current study was “Does the ProfESus course lead to deeper reflection on sustainability over the lifetime of the course?” This question can be answered by examining how the main concepts changed over time through comparing journal entries in the early stages of the course (Figure 2) to those from the end of the course (Figure 3). The course stretched over 15 weeks, but the journals covered only the first 14, so they did not catch the end of the course nor what the participants implemented after the course.
Figure 2. Early observations theme map

Figure 3. Late observations theme map
There are clear differences in the main theme maps at the early stages of the course compared to the late stages. This may simply reflect different course content at each stage. By the late stage of the course, the participants seemed to be more concerned with specific aspects of sustainability such as plastics and waste, whereas at the beginning they were more concerned with the differences that were presented to them in terms of everyday processes, pedagogy and organisations. This shows a more nuanced understanding of the concept of sustainability over time although it does not provide evidence of an actual increase in sustainable behaviour. Food is a common theme, both at the start and at the end of the course, but looking at the diary extracts shows that there were differences at the start and the end of the course. At the start of the course, food was mentioned as a general world problem, in terms of personal attitudes or in relation to some of the visits that were included in Module 1 in Vienna. At the end of the course, food was most often mentioned in relation to specific learning activities. Examining the themes at the end of the course shows that the concepts of plastic, tobacco, waste and food are all mentioned in relation to a specific lesson, training idea or community initiative. A 15-week course is most likely not long enough to promote strong sustainability based on competence, but these are clear signs of steps in the right direction.

What is Missing?

The ProfESus course recommends Green Pedagogy as a useful approach to ensure that sustainability is embedded in learners’ everyday practice, but the concept does not appear in the content analysis of the learning journals as an important theme. The concept of Green Pedagogy was identified by the software, but was not mentioned sufficiently often for it to figure in the list of twenty most important concepts. Moreover, another missing point is any major reference to the UNECE competencies, which form the backbone of the planning template of the learning activities. The participants were recommended to use these learning activity plans in their trial lessons. Since learning activities were supposed to be centred on specific home economics competencies, and the assessment of what students do in the lessons should be based on progress towards sustainability competencies, then this is surprising and may point to a need to adjust the ProfESus course materials so that these important concepts come over more clearly to the teacher course participants.

Conclusion

Analysing the content of the participant learning journals shows that the ProfESus course has succeeded in raising awareness of sustainability and associating this with pedagogy. However, a strong awareness of Green Pedagogy fails to manifest, as do the UNECE sustainability competencies. A textual analysis of the course materials should be done to see if these concepts are given their due prominence. However, an indicator of sustainability awareness is observable through the high ranking of the concept of values, a subset of the UNECE competencies, and the concept of mindset. The presence of a concept, especially at a high rank, is likely good evidence that the concept has true significance in the context of the analysis, in this case, learning journals of teachers wishing to implement a more sustainable pedagogy.
The absence of a concept is more difficult to interpret. The software may be less likely to identify competencies as a concept and the appearance of values, a subset of the ProfESus concept of sustainable competencies, may indicate that our promotion of the UNECE competency framework succeeded to a greater extent than the Leximancer software shows. The analysis demonstrates a high level of favourable (as against unfavourable) content and once the few instances of unfavourable content is examined, it is apparent that this deals with common teaching challenges of lack of time or unsupportive colleagues as well as the overwhelming nature of some sustainability goals rather than feelings of discontent with the course or the philosophy of the course. The text analysis is less useful in showing increased sustainability awareness over time. This question may be better answered using other methods. That said, we conclude that teacher learning diaries are a rich source of feedback on the efficacy of the course and can be used as a part of the quality assurance process to improve the course.

References


Leximancer software. Available at https://info.leximancer.com/


ProfESus Erasmus+ project. Link to curriculum https://profesus.eu/outputs/english/


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Abstract

Teacher empowerment is a central issue in relation to the efforts to improve the quality of education. However, teacher empowerment will remain an abstract idea if its implementation is not supported by an appropriate strategy. The demands for a quality education will be unreciprocated if teachers do not have the opportunity to empower themselves. This research aims to investigate the teacher empowerment strategy in Indonesia, which has been conducted by employing a community-based teacher training program. This study has highlighted several research questions: What is meant by community-based training program? Why is the training program needed? Who is the target of the training program? What model has been used to implement the training? What are the results of the training that has been executed? This research was conducted from November 2018 to January 2019. The research data were collected by means of documentation studies and interviews. The data analysis was carried out quantitatively and qualitatively, where the quantitative analysis was processed based on the document study data, meanwhile the qualitative analysis was performed based on the interview data. The research results showed that community-based teacher training was transformation of teacher development strategy as a follow-up on teachers’ competency test in Indonesia. The community-based teacher training succeeded in increasing the professionalism of teachers in Indonesia, particularly in terms of implementing their pedagogical and professional competencies. The training is also successful in motivating the teachers to engage themselves in continuous learning efforts through building strong teachers’ network and working collaboratively with colleagues. Quantitatively, training was proven to increase the average of teacher competency by 23.97 (on a scale of 100). The research results are expected to provide information about the best practice in teacher coaching that is
Community-Based Teacher Training: Transformation of Sustainable Teacher Education

Conducted massively in a national scope based on the local community so that a lifelong learning culture for teachers is established to support the development of sustainable education.

**Keywords:** teacher training, community-based training program, sustainable teacher empowerment.

**Introduction**

The role of education develops along with the dynamics of human life and civilization. One of the phenomena in this century is the emergence of education as the major force of human development (Leba & Padmomartono, 2014). Education is intrinsically related with human development and is the key factor in managing poverty alleviation, health promotion, sustainable livelihood, and sustainable environment (Ghorbani et al., 2018). Education should sustain and realize human potential in relation to the need (Reid & Horváthová, 2016: 67). Education is also an essential element in the context of sustainable development (Bertschy et al., 2013). History has proven that the progress and glory of a nation are determined by the education sector (Kunandar, 2007). The quality of education strongly influences the quality of human resources (HR), which determine the progress of development (Hakim, 2015). Therefore, a nation will be great and will continue to develop when it succeeds in improving the quality of education in a sustainable manner.

Teachers are one of the subsystems that have an important role in the national education system (Suparlan, 2008). Teachers, as holders of interdisciplinary education, play a key role in the process of transformation and implementation of sustainable development (Andić & Vorkapić, 2017, p. 121). Teachers are the human elements of education (Djamarah, 2010) who strongly determine the learning success at schools (Mulyasa, 2015). Teachers are important change agents and must be able to help develop students’ knowledge and ability to do their tasks (Hiller & Reichhart, 2017, p. 84). Moreover, teachers are essential resources in the management of education organization (Leba & Padmomartono, 2014). Therefore, teachers are one of the main conditions that must be paid attention to in education development in order to really contribute to the improvement of human resource quality (Mulyasa, 2015). The development of a high quality of education can be achieved if the teachers can escalate their capacity in a systematic and sustainable manner.

Becoming a teacher means being ready to face the challenges and to develop skills to manage and influence change (Poom-Valickis et al., 2013). When currently the era changes into putting forward openness, democratization, and accountability, and the era of information technology has reached all parts of the human life, the teaching and learning paradigm also totally changes (Suparlan, 2008). If in the past teachers only acted as educators, now they are expected to develop their professionalism, not only within the teaching and learning environment, but also developing the world of education in a broader meaning (Priatna & Sukamto, 2013). As an implication, teachers must continuously develop their competencies and professional skills to respond to the challenges. Without teachers’ motivation and willingness to keep on improving themselves, education would become a hindrance knot against the rate of human life changes.

Teachers’ strategic role in improving the quality, relevance, and efficiency of education implies that teachers’ professional development is a need (Saud, 2017). Currently teachers
face three critical issues, namely change, uncertainty, and increasing complexity of problems (Payong, 2011). Changes in education and teaching as well as the present demands from the society have become so complicated that it is difficult to control. On that grounds, teachers need to be ready in facing challenges that may arise. Uncertainty is the direct implication of change which sometimes triggers anxiety and inertia, whereas change and uncertainty carry along new challenges that are more complex. Such impressive demands compel teachers to continuously improve their insights, knowledge, and skills in order to provide creative and innovative solutions to problems.

A professional teacher must be willing and able to perform continuous professional development (Daryanto, 2013). The demands for continuous professional development get stronger along with the presence of current change dynamics, in which teachers are faced with a rapid change, demands for high standard, and requirements for education quality improvements (Kasmayadi et al., 2018). Teachers’ professional development is a continuum which starts from pre-service period, continues throughout the first years as teachers, and goes on along their teaching career (Niemi, 2015). Quality teachers can only be produced through an integrated and continuous process, starting from the pre-service education process at the teacher training institution, up to the upgrading processes at the in-service training institution and on through the coaching process by means of on-the-job training at the educational institution where they work (Suparlan, 2008). Therefore, educational institution should have a well-designed teacher training scheme to meet their teachers’ need, meanwhile teachers should be aware of the continuous learning process that they have to undergo, starting from the first stage of training until the time they get real experience that would make them better and more mature.

Various career development activities for teachers are expected to be used to renew, improve, and upgrade teachers’ professional skills in order to comply with the demands of the society, the progress of time and the rapid development of science and art (Mulyasa, 2013). It does not mean that teachers are individually responsible for their own self quality development. Other education stakeholders must also participate to support the sustainable teacher competency improvement. This correlates with the fact that teachers are not the sole actors in conducting education. Sustainable professional development must be a shared responsibility, including the government. The government must take part in facilitating teacher competency improvement. Therefore, a synergy can be achieved among various parties to encourage teacher quality improvement.

Indonesia is one of the countries currently busy conducting various competency improvement programs in order to encourage sustainable teacher professional development. It began with the mapping of teachers’ competencies by means of teacher competency test conducted in 2015. The Indonesian government keeps on trying to implement follow-up programs to improve teachers’ competencies based on the results of the teachers’ competency test. It is certainly not an easy task to improve the quality of about three million teachers, not only the huge number of teachers, but also because of the wide distribution of teachers assigned throughout Indonesia, which consists of so many islands, provinces, and regencies/cities. It takes a systematic program that is comprehensively designed to cater the needs for teachers’ competency improvement in an integrated manner but locally-based, so that teachers do not need to go far away to another island or another province/regency/city. Teachers can still improve their competencies by staying close to their students and their families.
One of the teacher empowerment programs implemented in Indonesia is community-based teacher training. This training is development from the learning teacher program conducted in 2016, with several improvements. The training was a teacher competency improvement program as a follow-up on the national teacher competency test that was followed by 2,699,516 teachers. Based on the competency test results, it was found that teachers’ quality in Indonesia had to be improved. Therefore, the government launched teacher training programs to improve the teacher quality in Indonesia.

This research aims to investigate the concept and implementation of community-based training as a form of teacher training transformation in Indonesia based on the results of teachers’ competency test. More specifically, the research questions to be answered through this research are: 1) What is the community-based training? 2) Why is a community-based training needed? 3) Who are the targets of community-based teacher training? 4) What are the application modes of community-based training? 5) What are the results of the training that has been carried out? The results of this research are expected to provide information about best practices in community-based teacher training as an alternative to teachers’ sustainable professional development program.

The remaining parts of this paper are organized as follows: Section 2 presents a review on the related literature. Section 3 describes the proposed method. Section 4 presents the obtained results and is followed by discussion in Section 5. Finally, Section 6 concludes the paper.

Related Works

Human assets are one of the most important resources available to any organization (Vathanophas, 2007). In the context of education, teachers are the spear point of the efforts to increase quality of education (Daryanto, 2013). Therefore, teacher empowerment needs to be performed in order to increase knowledge, skills, and behaviors necessary to support their noble responsibility as the main contributor to students’ learning process (Kimwarey, Chirure, & Omondi, 2014). There are many studies which indicate various benefits that can be obtained from teacher empowerment at school (Balkar, 2015). Empowered teachers are professionals who own the power to prepare the curriculum, manage their own lessons, and, consequently, have the power to teach effectively (Stacy, 2013). This is essential considering that education execution always needs a professional teacher (Danim, 2016). Therefore, a teacher cannot just simply focus on the daily tasks of students’ learning but must also give priorities to his/her own self-study program.

Teacher quality improvement is vital to guarantee quality education service (Panggabean & Himawan, 2016). Teachers’ professional development is the key to students’ learning development (Bubb & Earley, 2007). Aside from the students’ interests, teachers’ sustainable professional development is also central for the school success (Earley & Porritt, 2010). Every teacher must have a learning spirit, which can compel themselves to reach the optimal point of their performance. This is in line with the research on professional learning which showed that teachers needed to actively involve themselves in learning activities for themselves (Dail et al., 2018). Therefore, every teacher must keep on learning and conducting sustainable professional self-development in order to provide best services for the learners.
Currently, teaching position is an occupation, which receives full recognition as a profession (Leba & Padmomartono, 2014); therefore, every teacher must fully realize that the occupation they have demands scientific support and preparedness to keep on studying. Profession is a type of job which does not only rely on physical power, but also demands enough education from those entering it, strengthened by special knowledge and skills and having the recognition from others (Leba & Padmomartono, 2014). Profession can also be said as a skill and authority in a certain position, which requires special competencies obtained from an intensive academic education (Kunandar, 2007). The determining characteristic of members of a profession is commitment, which is shown in the form of self-improvement or development (Bubb & Earley, 2007). As a profession, teaching must be filled by those who have commitment and willingness to continuously develop themselves so that they can always face the constantly growing challenges in performing their duties.

As professionals, teachers are willing to continuously learn, develop relations with colleagues, be disciplined in performing their responsibilities, and improve their competencies (Leba & Padmomartono, 2014). A teacher who stops learning means that s/he denies his/her profession. Continuing professional development is a lifelong commitment for a teacher’s self-improvement (Brine, 2005). In their survey on sustainable education for profession, Madden and Mitchell (1993) and Bubb & Earley (2007) stated that sustainable professional development fulfills three functions: 1) renewing and expanding professional knowledge and skills, 2) training for new responsibilities and for changing roles, and 3) developing personal and professional effectiveness and improving work satisfaction. Therefore, it is undeniable that teacher empowerment is one of the important knots of teachers’ sustainable professional development to realize professional teachers who can offer best services for the students.

Continuous professional development includes all formal and informal learning, which enables an individual to improve his/her own practices (Bubb & Earley, 2007). Additionally, teachers’ professional development aims to increase professional knowledge; improve professional skills; help clarify professional values; and enables students to be educated more effectively (Bolam, 1993; Bubb & Earley, 2007). Teachers’ self-capacity improvement is an absolute prerequisite for teachers to gain professional skills according to the predetermined standards. A professional teacher must be able to master various strategies or techniques in the teaching-learning activities, and to master the basics of education as contained in teacher’s competencies (Nabila, 2016). Without updating knowledge and competencies, a teacher would find difficulties to follow the rhythm of change in students’ learning demands and needs, which continuously change along with the flow of time.

The teaching profession is not only unnatural but also complicated (Ball & Forzani, 2010). In the 21st century, education requires well-instructed teachers with teaching and communication abilities (Pontes-Pedrajas & Varo-Martínez, 2014). Teachers must learn to improve knowledge and skills they own to facilitate themselves in performing their duties. The education reform in the past 20 years demands a quality teacher training (Bubb & Earley, 2007). Aside from being of high quality, teacher training must also be accurate and have the right strategy. Training objective must be identified in a valid and measured way in order that suitability between training and target teachers can be well mapped. The appropriate strategy is needed to ensure that each teacher who joins the training can be facilitated in his/her competency improvement through training.
Community-Based Teacher Training: Transformation of Sustainable Teacher.. 53

Method

This is a descriptive research to investigate a community-based training program in Indonesia. This research was conducted from October 2018 to January 2019. The research was performed on the basic concepts of community-based training program policy; its application and the results in improving teachers’ competencies in Indonesia. The data for this research were collected through documentation study and interviews. The documents studied in this research were documents about Indonesian government’s community-based training program policy, formulated by the Directorate of Teachers and Education Staff, Ministry of Education and Culture, Indonesia. Interviews were conducted with community-based training program national developers, national instructors, and teachers from various provinces in Indonesia who joined the training program. Interviews with program developers were aimed to search for information about the nature of community-based training and the way of its implementation, interviews with national instructors were aimed to search for information about training execution, and interviews with participating teachers were aimed to reveal information about responses towards process and results of the training. Data analysis was conducted in descriptive quantitative and qualitative manner, in which the quantitative analysis was carried out based on the data of document study results, whereas the qualitative analysis was performed on the basis of the interview result data.

Results

Based on the studies of several documents and interviews with training program developers conducted in this research, it has been found that community-based teacher training is an Indonesian government program to improve teachers’ competencies as the follow-up of teachers’ competency test performed by the government in 2015. In 2017, the Indonesian Ministry of Education and Culture via the Directorate General of Teachers and Education Staff developed the Continuous Professional Development Program, which was the continuation of Learning Teachers’ Competency Improvement Program in 2016, in which the main objective was to improve teachers’ competencies.

In the training general guidance from the Indonesian Ministry of Education and Culture, it is stated that the teacher community is a community that has been officially registered in the Management Information System (SIM). The teacher community consists of task force community and rayon community. The task force community is a community legitimized by the Provincial/Regency/City Education Service Office and owns a Community Establishment Decree. The task force community consists of cluster activity center, teachers’ work group, content teachers’ discussion groups, and guidance and counseling teachers’ discussion groups. Rayon community is a content/skills package teachers’ professional activity forum coordinated and formed by Teacher Development and Empowerment Technical Executor Unit from the Ministry of Education and Culture. Rayon community is established to accommodate certain content teachers with less than eight persons per province. Teachers who have not joined any of the communities above can join the existing communities or create a new one.

In the training guide book for national resource person and national training instructors (Ministry of Education and Culture, 2017), it is stated that in 2016 the Directorate General of Teachers and Education Staff developed a program to facilitate teachers’ competency improvement based on UKG 2015; it was called Learning Teacher’s Compe-
tency Improvement Program with a target achievement of national average score 65. The number of teachers who joined the Learning Teacher’s Competency Improvement Program in 2016 was 427,189 or 15.82% of all teachers who joined the competency test (2,699,516 teachers). The percentage of teachers’ participation in the Learning Teachers’ Competency Improvement Program (15.82%) did not really represent the whole population of teachers, but it gave a glimpse of the facilitation result offered for the teachers in the Learning Teacher’s Competency Improvement Program. The teacher competency improvement program was continued in 2017 through a community-based training program with several improvements from the earlier program.

The community-based training renewal program compared with the earlier program is that the community-based training program was conducted in teacher profession communities at the regency/city level. In the previous program, the training materials were based solely on individual teacher competency profile, whereas in the community-based training program the material was determined based on the common condition of the teachers within a community, i.e., based on the lowest competency average among the teachers in the community. This was stated by one of the developers of community-based training program, as follows:

*In the community-based teacher training, the materials to be learned are determined based on the general weakness condition of material mastery in each community. The weakness is based on the lowest average competency profile score owned by the teachers. This is different from the ways the materials were determined in the earlier program, in which the materials were determined based on individual teacher’s competency mastery weakness* (Supinah, Community-based Teacher Training Program National Developer, interview on 31 January 2018).

From the interview with the program developer, we have learned that community-based teacher training program is conducted by empowering local potential, namely the community member teachers, to help fellow teachers with lower competency mastery. Results of teacher competency test in 2015 showed that many teachers were able to achieve good results and could be empowered to help other fellow teachers who scored lower. The pattern of empowering teachers with high competency scores to help other teachers with lower scores can be well facilitated through the community-based teacher training program.

In the training technical guidance published by the Indonesian Ministry of Education and Culture, it is stated that community-based teacher training program is performed in three modes, namely (1) face-to-face (offline); (2) full online learning; and (3) blended learning (combination between online and face-to-face mode). The modes were selected by the provincial/regency/city Service Office or by the Technical Execution Unit of the Ministry of Education and Culture to form classes according to the participants’ profile. The face-to-face mode is a training activity in which direct interaction takes place between trainer and the trainees, as depicted in Fig. 1.

The full online mode is a training activity in which interaction between participants and the mentor/trainer is conducted online by using website media which can be accessed via the internet, computer-based learning, virtual class, and/or digital class. There are two models of online training: Model 1 that only involves expert and teachers as participants (see Fig. 2), and Model 2 that involves expert, mentor/trainer, and teachers as participants (see Fig. 3).
Meanwhile in the third mode, the combination mode, participants will interact with
expert online, whereas the interaction between participants and mentor is conducted
either online or offline. Online learning interaction is performed independently by using
information technology and electronically prepared teaching and can be conducted anytime
and anywhere. Participants interact with expert either synchronously – learning inter-
action at the same time, such as using video call; telephone; or live chat, or asynchronously –
learning interaction not at the same time via electronically-prepared learning activities
by using forum or message. Face-to-face interaction is conducted according to a schedule
that is agreed earlier between participants and mentor at the predetermined Learning
Center and supported by class committee. In the combined mode, participants are facili-
tated by mentor online and offline. Participants perform learning interaction both online
and face-to-face. The face-to-face interaction is performed at the Learning Center according
to an agreed schedule and is facilitated by a mentor. Interaction in the combined online
mode can be seen in Fig. 4.

In the process, the community-based training can be followed effectively by the
teachers compared with the application of earlier training program. Training performed
at communities, with participating teachers from the same community, can run more
constructively because participants are familiar with one another, and they experience relatively similar teaching problems. This was expressed by Estina, one of the national experts and program developers, as follow:

*The trainers are taken from teachers, members of the community, who have the best competency. Therefore, the execution of community-based training, aside from targeting on teachers’ competency improvement, also aims at empowering the teachers to support one another in competency improvement. Training participants come from the same community as the mentor, this helps ensure that the training can run more constructively because participants know each other, which means that there is no communication barrier among them* (Estina, community-based teacher training expert and program developer, interview on 31 January 2018).

At the end of the training, every participant must join a post test to determine the learning achievement during the training. Generally, the results were quite pleasing, there has been a significant increase in competency mastery by the teachers. Nationally, the average results of the teacher competency test 2015, 2016, and 2017 for each level of education can be seen in Table 1.

<table>
<thead>
<tr>
<th>Level</th>
<th>Participants</th>
<th>Person/Module</th>
<th>Average Score</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>89</td>
<td>72</td>
<td>89</td>
<td>181</td>
</tr>
<tr>
<td>Elementary School</td>
<td>185</td>
<td>219</td>
<td>185</td>
<td>372</td>
</tr>
<tr>
<td>Junior High School</td>
<td>65</td>
<td>85</td>
<td>65</td>
<td>131</td>
</tr>
<tr>
<td>Senior High School</td>
<td>25</td>
<td>28</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Vocational School</td>
<td>12</td>
<td>19</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Special School</td>
<td>7</td>
<td>3</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>

* in thousand

Table 1 shows that the teacher competency improvement program, which was conducted in the form of Learning Teacher Competency Improvement Program in 2016 and continued by community-based training in 2017, had a significant impact as shown by the final test in 2017. There has been an average increase in teacher competencies by 23.97 (scale of 100). These results were in line with the qualitative findings from interviews with various stakeholders who stated that the program was able to improve teacher quality seen from the improvement of their pedagogical and professional competencies. The training is also successful in motivating the teachers to engage themselves in continuous learning efforts through building strong teacher network and working collaboratively with colleagues.

This success has encouraged the government to keep improving its training program in order to give an optimal result. The training program renewal, performed in 2018, was a reinforcement of community-based training program application. The focus of the program renewal implemented during the 2018 training program was optimization of face-to-face mode. The reinforcement of face-to-face mode training was conducted with the background of the vast and scattered geographical condition of Indonesia,
consisting of separate islands, so that a community-based training program was considered more efficient in terms of organization and funding, and could further help develop synergy among teachers within one region or community. The face-to-face mode can be conducted in two alternatives, namely: 1) full face-to-face; and 2) face-to-face and independent learning.

1. Full Face-to-Face

The teacher training program with full face-to-face pattern is a training activity in which all allocated learning time is conducted in a face-to-face manner between participants and the trainers. In the full face-to-face pattern, participants join the training for 60 lesson hours (@ 45 minutes) for content teachers, kindergarten teachers, special education teachers, elementary school teachers, and guidance and counseling teachers; they must cover 2 competency groups (two pedagogical modules and two professional modules). In turn, vocational school teachers must join for 150 lesson hours (@ 45 minutes) for intensive pedagogical material comprehension, intensive professional material comprehension, and Skills Competency Test (UKK) at two specific clusters according to Level IV of the Indonesian National Qualification Framework Scheme (KKNI).

2. Face-to-Face and Independent Learning

The teacher training program with face-to-face and independent learning pattern is a training activity, in which learning is conducted partly through face-to-face and partly carried out by learning independently. The face-to-face activity in the beginning is called ‘In Service Learning 1’ or In-1, whereas the face-to-face activity in the end is called ‘In Service Learning 2’ or In-2. The ‘On the Job Learning (On)’ is the independent learning activity, which is the continuation of In-1 activity process.

a) The face-to-face and independent learning pattern for kindergarten teachers, special education teachers, elementary school teachers, and guidance and counseling teachers consists of In-1; On; and In-2 activities, with a pattern of 20lh-20lh-20lh (20-20-20) or 20lh-30lh-10lh (20-30-10) (where lh is a learning hour).

b) The face-to-face and independent learning pattern for vocational school teacher’s organization follows the pattern shown in Fig. 5.

Figure 5 provides an analysis of training needs and participation selection to obtain the related information: a) skills competency which becomes priority; b) number of teachers who will sit for initial Skills Competency Test and the cluster to be tested; and c) number of teachers who previously had taken skills competency test, in which the skills certificate received will be recognized, if: 1) the skills certificate is still valid; and 2) the competency unit stated as competent in the certificate is equivalent with the competency unit to be tested according to Level IV which has been determined. Additionally, within the training needs analysis activity, vocational school teacher participants are expected to gain information about: a) the coaching pattern that will be conducted by the Center for Teacher and Teaching Staff Development and Empowerment at schools; b) the schedule of training and skills competency test; c) technical information regarding structured independent activities regarding the skills competency that must be learned and completed by the teachers as participants of the training program.
In Figure 5, the structured independent activity in vocational schools is on-the-job learning (On), in which teacher participants from vocational schools learn about competency unit’s material in the first and second clusters, which have been determined independently at the school, each for ten days (minimum 2 lesson hours a day) each cluster. In turn, the training and skills competency test are activities conducted face-to-face between participants and the instructor at the training site for ten days and followed by skills competency test for two clusters. The total time allocated for training activity is 150 lesson hours. The skills competency test for vocational school teachers is conducted at the end of the pedagogical and professional material reinforcement with a feasibility recommendation from the trainer.

Compared with the organization of training the year before, in which some was conducted online, community-based teacher training with the face-to-face mode offered several benefits. This was expressed by Yuliana (one of the participants), as follows:

The training that is performed face-to-face facilitates the participants in joining the training and comprehending the materials provided. When a participant finds a difficulty in comprehending the material, he or she can directly ask the trainer who is physically present at the classroom during the training. The community-based face-to-face training can also reach all areas in Indonesia, including those which are still having hindrances with the internet connection. The training that is performed face-to-face community-based can also reach all areas throughout Indonesia, including those which still have limited internet connection. If the training was conducted online, like the previous year, many teachers would experience obstacles due to limited internet connection. Additionally, community-based face-to-face training can create synergy among participants in joining the training, due to the fact that they belong to the same community, they know each other already, and because they face problems
with the same materials, the collaboration they develop with one another will be better established. Participants are also more open during the training because other than the fact that other participants are their own colleagues, in the face-to-face community-based training, the instructors are also members of the community, therefore, they know each other (Yuliana, participant – teacher form Lampung Province, interview on 31 January 2018).

Community-based teacher training program implementation serves as an inspiration for the Indonesian government to continue performing service upgrading for teacher competency improvement. In 2019, the Indonesian government is preparing continuation training programs for teachers as a follow-up for the previous training with a target of achieving teachers’ average competency achievement of 80. These programs are expected to help realize the availability of quality teachers, who have professional skills that can help them carry out their profession successfully.

Discussion

Community-based teacher program is one of the breakthroughs in empowering the teachers to support competency improvement by optimizing teachers’ synergy within a region. Through the community, teachers can develop themselves through training organized close to their workplace working with fellow teachers. In this way, teachers do not have to go far away from home to join training, and teachers can meet their colleagues who become their learning partners. This pattern of teacher empowerment is suitable for teacher development strategy in countries with many teachers located in a vast area, not to mention different separated islands. Inviting teachers to training in an area is very costly, it is also a very demanding task to manage. On the teachers’ side, training in a faraway place means that they must leave their students and families for an extended time. Training conducted at the community, within one particular area, can be organized more effectively in terms of organization, teachers and their family, students and the school.

Through community-based teacher training, teachers from the community in the same area would interact and share knowledge and experience so that they learn from one another. This interactivity can encourage the spirit to develop and innovate in the classroom teaching practice, there would be improvements in teaching methods based on the findings from another teachers’ experience. Innovation in classroom teaching practice would prove to be difficult if teachers do not open themselves to new ideas. This is consistent with Saud (2017) who states that innovation in education also affects the need for sustainable teacher development. Only teachers who continue learning can offer renewal in the classroom teaching practice. In fact, not only renewal in the classroom teaching practice can be offered, but teachers who keep improving their self-competencies are teachers who can realize education for sustainable development. This is in line with the ideas of Alkhawaldeh (2017), who stated that teacher education for sustainable development was an education paradigm which considered lifetime teachers’ professional development as the focus of teaching practice.

Community-based training is one of the means that can give the answer to the need of such an achievement. With a training system and content prepared to match the teachers’ needs, community-based training can offer enlightenment and fulfillment of teachers’ scientific and skills needs. This is in line with the objective of a sustainable
professional development activity, namely to: 1) increase teachers’ competencies to achieve the determined standard of competency, 2) update teachers’ competencies to fulfill their needs in developing knowledge, technology, and art to facilitate students’ learning process, 3) increase teachers’ commitment in performing their main duties and function as professionals, 4) develop the love and pride as someone holding a teacher’s profession, 5) elevate the image, dignity and worth of teaching profession in the society, and 6) uphold teachers’ career development (Daryanto, 2013). Teachers who join community-based training get a learning service which matches with their needs, so that they can increase and update their competencies, have more commitment and love towards the profession, and eventually will elevate their dignity and self-worth as professional teachers, those who can respond positively to educational service needs, which is their main responsibility.

Community-based teacher training is also one of the ways to help keep the teacher work group “alive”. Through the work carried out, community-based teacher training has accommodated members’ common activities through productive activities to improve their competencies. This is consistent with the opinion of Neil and Morgan (2005) who stated that network activities could positively contribute to teachers’ sustainable professional development. A similar opinion was expressed by Mulyasa (2013) who said that teachers’ work group as a teacher forum had an essential role in teachers’ sustainable professional development, to develop various beneficial activities towards teachers’ competency improvement and professional development. Therefore, a partnership network among teachers within a community in an area needs to be continuously encouraged to grow and to actively organize joint activities followed by members of the community.

Community-based teacher training can be a program, which bring teachers together from various schools to meet and study together. Community-based teacher training encourages teachers to be professionally bound with fellow teachers, so that they can offer support to one another in terms of self-development. This is in accordance with Brine’s opinion (2005) who stated that a network is one of the strongest methods to ensure that an individual develops professionally and maintains strong relations with the professional community. In tune with the opinion above, Darmin (2016) stated that a teacher’s membership in teachers’ work group was needed to increase professional ability in the effort to improve education quality. This means that involvement in teachers’ work group is a teacher’s active participation based on his/her willingness to join professional academic coaching activities through a collective association in order to improve his/her professional competencies.

Involving local community member teacher as a mentor in the community-based training has a double benefit. Community member teachers who own good competency are empowered to help other community members. This is in harmony with the opinion from Wen & Wu (2015) which stated that continuous professional development could help teachers become responsible mentors for sustainable education. Teachers who perform sustainable self-development will transform into better ones and will master enough competency to be shared with colleagues and fellow teachers. Teachers with high competency are not supposed to keep the competency for themselves, because as professionals, there is a responsibility to work together with other members of the profession towards a collective capacity improvement in providing a service. This is consistent with Gerretson et al. (2003) who stated that an effective teacher should make the time to communicate with colleagues so that they would function better as mentors and models for others.
Therefore, a community-based training does not only enable community members to improve competencies, it also encourages synergy among community members so that they can collectively move towards betterment.

Empowering local potentials as training mentors needs not be suspected to downgrade training quality because a colleague mentor can positively develop a collaborative culture among community members in order to help one another. This is consistent with Alkhawaldeh (2017), who stated that there was a proof which supported collaborative sustainable professional development which aimed to fulfill the need for teachers’ professional development, similar proof supported that teachers needed to have an ownership of their professional development.

The teacher partnership network developed and reinforced through community-based training can stimulate teachers to build a wider network. Various other benefits of a learning community in a network were expressed by Lieberman (1999) and Bubb & Earley (2007); they said that a network could provide the following: opportunities for staff to obtain and produce knowledge; various collaborative structures; flexibility and informality; discussion over problems that do not have agreed solutions; ideas that challenge the staff and not only prescribe generic solution; organization structure than can be independent yet attached to the school or university; opportunity to work across schools and regency/city authorities; a reform vision that is exciting and encouraging towards risk taking in a supportive environment; and a community which respects teachers’ knowledge as well as knowledge from research and reforms. These various benefits are essential for every teacher in the framework of encouraging themselves to develop not only in the knowledge aspect, but also in improving the capacity as professionals.

Community development through teachers’ network can be expanded not only among teachers within one area, but also with various components which have teachers’ professional relations. Neil & Morgan (2005) stated that a network could be seen at two different levels (face-to-face and online), as shown in Fig. 6.

![Diagram of teachers’ network](image-url)

*Figure 6. Seven main directions of teachers’ network (Neil & Morgan, 2005)*

Figure 6 shows that the network which can be developed by teachers is very vast: not only with teacher organizations but also with universities; mixed university/teachers; teachers from the same school; teachers from other schools; parents; materials organizations; and also, the government. Synergy from various parties is very good to support
teachers’ self-development and performance. Neil & Morgan (2005: 56) also stated that fellow teacher partnership support could be seen as covering the four main elements and could vary along the continuum from loose/informal contact to structured/formal interaction, as shown in Figs. 7 and 8.

**Figure 7.** Teacher partnership continuum (Neil & Morgan, 2005)

**Figure 8.** Types of contact 9 (Neil & Morgan, 2005)

Figures 7 and 8 show how big the potential of benefits that can be obtained by teachers from partnership with colleagues and fellow teachers. Therefore, the community-based teacher training can give positive multi-effects not only in improving teachers’ competencies from the materials studied during the training, but also the bonus synergy between parties that can encourage acceleration of teachers’ professionalism improvement.

Professionalism refers to the degree of performance as a professional or performing a job as profession. Professionalism also refers to attitude and commitment of members of a profession to work based on a high standard and profession code of ethics (Saud, 2017). Moreover, professionalism also refers to attitude of members of a profession towards the profession and the degree of knowledge and skills they have in performing their jobs (Saud, 2017). In line with the opinion above, what is meant by professional teacher at least has the following characteristics: 1) having commitment to students’ learning process, 2) having deep mastery of the subject and how to teach it, 3) thinking systematically about what s/he is doing and learning from experience, and 4) being a part of the learning society in his/her professional environment, which enables him/her to always improve professionalism (Saud, 2017).

Teacher development is meant to stimulate, maintain, and increase the quality of staff in solving organizational problems. Furthermore, it is also stated that teacher development based on the need of the institution is important, but it is more important to conduct training based on teachers’ individual needs to perform the professionalization process (Saud, 2017). The need for teachers’ professionalism development does not stop when a teacher completes his/her pre-service education. Sustainability education is a continuum of practices that begins when college students start work in the field and con-
Community-Based Teacher Training: Transformation of Sustainable Teacher...

Continues throughout a teacher’s career (Merritt, Archambault, & Hale, 2018, p. 30). The teacher’s competency development needs to be carried out throughout his/her service term (Saud, 2017). Executing a sustainable professional development activity is expected to produce professional teachers, not just having a vast knowledge, but also being able to nurture students’ interest and talents according to his/her share in mastering science, technology and art.

Competency-based training is one of the many correct strategies to realize a professional teacher. A professional is always open and responsive to change, especially in relation to his/her field of profession (Payong, 2011). As a professional who has a strong scientific basis and a solid practice, a teacher must always follow the paradigm changes because they bring considerable influence on his/her teaching practices. In order that teachers can catch up with those changes, one of the demands of professionalism is sustainable professional development (Payong, 2011). The community-based training is one of the great means to support teachers to develop their self-competencies, which later can be further developed by each teacher, by collaborating with other teachers, so that teachers can perform their profession well amid various changes in the situation and system of life.

In a competitive world today, the idea of competency has drawn significant interest, and it is believed that teaching competency can be used as a clue in determining personal quality and characteristics of a teacher (Alqiawi & Ezzeldin, 2015). One of the most significant objectives of education in the post-industrial society is the transition from teaching paradigm (information sharing) to educating paradigm (competency sharing – stimulation towards action) (Abykanova et al., 2016). This surely demands teachers’ paradigm change in viewing their daily tasks in the classroom, no longer simply transferring knowledge, but also capable of encouraging and inspiring the students. Here, the need for professional teachers who keep developing themselves is very important.

**Conclusion**

Based on the results of this research, it can be concluded that community-based teacher training is a program from the Indonesian government to improve teachers’ competency as a follow-up to the Learning Teachers’ Competency Improvement Program in 2016. This training program is needed as the follow-up on the results of teachers’ competency test that was conducted in 2015, that is, to improve the competency of teachers who, based on the competency test, still have low competency mastery. The target of community-based teacher training program are teachers whose competency profile (based on the results of teachers’ competency test) shows three to ten competency groups that have lower than minimum score (65). Through the community-based teacher training program, it is expected that the teachers could reach the minimum average competency score of 70 in 2017, reach the score of 75 in 2018, and reach minimum score of 80 in 2019. The community-based teacher training is organized in three modes, namely 1) face-to-face, 2) full online learning, and (3) blended learning. The modes are selected by Provincial/Regency/City Service Office or the Technical Execution Unit to organize classes according to the participants’ profiles. The community-based teacher training succeeded in increasing the professionalism of teachers in Indonesia, especially related to the improvement of pedagogical and professional competencies. The training is also successful in motivating the teachers to keep learning in order to improve sustainable self-competency through the teacher network collaboratively with colleagues. Quan-
titatively, training was proven to increase the average of teacher competency by 23.97 (on a scale of 100). In the process, the community-based teacher training program is positively welcomed by the teachers, and those who have joined the program generally succeeded in improving the competency according to the target that has been set. Other than competency improvement, community-based teacher training is proven to have given another benefit, that is, the development of synergy among teachers in the community, so that a collaborative learning culture develops among them.

Other than the empirical findings above, this research also gives an inspired finding about the potential of community-based teacher training as part of teachers’ sustainable professional development program. The community-based teacher training can give motivating stimuli to the teachers to continue studying to improve self-competency collaboratively through a network with colleagues. Involving teachers as mentors for other teachers also gives another dimension about chosen local teachers who can become the learning partner for other teachers. The problems that the teacher community has in finding training resource persons from outside can be minimized by empowering colleagues who have better competency mastery. The learning synergy in one area can encourage the emergence of a teacher community with the passion and willingness to keep on improving competencies. ‘Teachers as lifelong learners’ is no longer a mere slogan, but a reality jointly presented by individual teachers who are in synergy to one another.

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Abstract
The aim of the research was to probe into the teachers’ notion of wisdom and the teachers’ wisdom itself. The study used a phenomenological approach where the experience of teachers was studied by using semi-structured interviews. The interview data were analysed using the qualitative content analysis complemented by some elements of quantification for visualization of a more holistic picture. The phenomenon of wisdom is described on the basis of teachers’ values and experience. According to the teachers, wisdom comprises several aspects and is viewed as a dynamic process. The conclusions reflect the integrity of the phenomenon of wisdom, as well as the importance and prospects of further study of wisdom for its use in the work of teachers.

Keywords: wisdom, teachers, experience, emotions, dynamic process.

Introduction
Education is the most important part of the modern world and the state of the world as a whole depends on the condition and quality of education. The goal of education should be not only to provide fragmentary knowledge in different disciplines and to verify academic performance, but also to ensure the harmonious development of other aspects of the human personality. Training should help develop global thinking and sense of integrity, the ability to maintain emotional stability and a highly moral lifestyle. It is designed to develop in a person such thinking that could lead to a qualitative change in human activities and actions, to ensure the searching direction towards sustainable development. For such a complex task to achieve, it is not enough to reduce all educational inquiry on teaching, it is not even enough to transfer knowledge and information only. As new concepts such as social and emotional intelligence become more widely applied and understood, more educators are realising that cognitive ability is not the sole or necessarily the most critical determinant of young people’s aptitude for flourishing in today’s society (McCraty, 2015, p. 66).

Teaching is much more complex and it is not easily measurable, and classroom events are often unpredictable as teachers are aspiring to practical wisdom (Darling et al., 2007). Therefore, investigation of wisdom in the perspective of teachers and recovering practical wisdom in teacher education is an eternal and natural duty for research in pedagogy. The nature of wisdom phenomenon is complex and closely related to philosophy of education, since Dewey made this basic assumption (Semetsky, 2008).
Such a phenomenon as wisdom drew attention to itself, stating its opportunities for teachers to discover the wisdom via sustainable development. The importance of the phenomenon of wisdom lies, first, in that it reflects the highest stage of the integral development of man and surrounding, and is associated with the transformation of understanding into practical activity, which is especially important for education for sustainable development (ESD). One of the surprising aspects of the phenomenon of wisdom is that it is difficult to describe and study its complexity and multidimensional manifestation. Wisdom covers the root causes of being; it gives a person something more that no other science will ever give. From Aristotle’s time, humanity knows that wisdom is the most accurate of Sciences and this essential idea was formulated by Wengert (2009) in short formulation, which is meaningful for education and teachers, i.e., Wisdom and Will are higher than Intellect (Wengert, 2009).

At present, there is an increasing interest in wisdom as a science that is able to overcome fragmentation and to restore the integrity of person, as well as determine the ways of sustainable development of society. To accomplish this task, it is necessary to investigate and determine the measures to be taken and the direction to move so that modern education meets the needs and hopes of people, so that they become wise. Academic inquiry is currently being devoted to acquiring knowledge. The idea is to acquire knowledge, and then apply it to help solve social problems. This needs to be changed so that the basic aim becomes to seek and promote wisdom – wisdom being understood as the capacity to realise what is of value in life for oneself and others (and thus including knowledge, know-how and understanding) (Maxwell & Barnett, 2008).

The present research was the initial stage of a more extensive study of wisdom in education and aimed at providing an insight of teachers into the idea of wise education and the wisdom of the teacher in order to obtain primary information, as well as, to clarify the issues studied and draw up a further research programme. The study of the experience of teachers and their views on the idea of wise education is important for understanding and determining the main component of the phenomenon of wisdom in education.

The interest in researching the wisdom phenomenon in education was a natural issue for the author in the context of his life experience, and also in the context of regional cultural life, in which the interaction between Lithuanian and Latvian cultures and overlapping of many values revealed themselves as the Baltic tendency to conserve wisdom through the development of cultural traditions and education. Cooperation with Daugavpils University and awareness of the holistic pedagogical perspective contributed to the author’s interest in studying the wisdom phenomenon in teacher education. The research was initiated in a broader holistic perspective with a focus on spirituality, an essential feature of cultural and educational recognition, which is inseparable from the expectation of the evolutionary call of the human species for spirituality in its relationship with the world through an activity that cultivates an ecocentric world view (Salite, 1998). Since the end of the 20th century, ecological relations have been highlighted in teacher education at Daugavpils University and, in the broadest sense of education, there is focus on spirituality that embraces human and natural relations and the human being as the creator of spirituality itself. Aristotle’s belief in education led the pedagogues of higher education institution to a deeper study of the specific task of education, phronesis (Aristotelis, 1995), the implementation of which nowadays became topical (Salite, Gedžune, & Gedžune, 2009; Salite et al., 2016). The idea of smart education emphasised in the Development Strategy of Daugavpils University and in the Teacher Education
Approach is also related to the expectation of a holistic science and transdisciplinary approach to higher education and teacher education (Development Strategy of Daugavpils University, 2016; Education Strategy of Daugavpils University, 2016). Since the beginning of the 21st century, in search of teacher education and reorientation of higher education to sustainability at Daugavpils University, the initial stage can be observed, which can generally be called the search for sense of integrity. In the beginning, it was searched through holistic insight into the complementarity of content and meta-content (Salite, 2000; Salite, 2002; Salite et al., 2005; Salite & Pipere, 2006; Salite, 2006; Salite, 2008; Salite, 2009), which opened the door to a wider use of the four-dimensional model of sustainable education for the strategic understanding of programmes, teacher education and higher education development (Salite, Ignatjeva, & Salitis, 2009; Salite, 2015), in which the sustainability phenomenon occurred. It is currently being studied in the context of contemporary Anthropocene era and its current quality (Salite et al., 2016; Fedosejeva et al., 2018). The use of a holistic approach was combined with the use of action research and therefore many phenomena relevant to human life and its perception were found, among which a special place was taken by the inseparable relation of the sustainability phenomenon with the action and the nature of the specific wicked problem of the sustainability phenomenon (Salite et al., 2016; Pipere, 2017; Fedosejeva et al., 2018), which required wisdom. Thus, a broader perspective of awareness of the wisdom phenomenon has been gradually found out that is evolving with the implementation of practical activity through decision-making based on wisdom of insight (Salite, Gedžüne, & Gedžüne, 2009). The current strategy for sustainable competence education is implemented on a global scale, where sustainability competence is an idea that cannot be interpreted without the use of the concept of smart education. In pedagogy, it can be called the sense of integrity, the content of which we find by the integration or synthesis of the content of ontological, epistemological and value experiences required for the content of the pedagogical perspective.

When starting the present research, the author had used the broadest perspective, which had been approved for years in education research at Daugavpils University, and at the beginning of the research the aim had been set to find out the teachers’ understanding of wisdom and wise teacher, which is the characteristic of present teachers in Visaginas (Lithuania). At the beginning of the research, the author has focused on identifying the real personal and professional experience of teachers by using a case study of participatory action research.

With the beginning of the Anthropocene era, the growing technologization and fragmentation of the whole social life, the characteristics of culture and civilization did not contribute to interest in studying the phenomenon of wisdom (Lynch & Veland, 2018; Fedosejeva et al., 2018). Throughout the 20th century, the idea of wisdom lost its relevance in education and educational research. This was promoted by the ideology of authoritarianism, egocentrism, rejection of everything natural in favour of industrialization and mechanization. Now wisdom is a transdisciplinary concept and is researched by scientists of various fields and specializations, and, by definition, many scholars are at the initial stage of the study, and so far, there are no complete and concrete recommendations on this issue. The beginning of the scientific interest in wisdom was the study of healthy aging. Until 1975, scientists almost completely ignored wisdom.

The study of wisdom in the traditional paradigm consisted in the fact that scientists tried to study and understand the phenomenon of wisdom, exploring various fragmentary
attributes and qualities without affecting the integrity and dynamic process of this phenomenon. The research of fragmentary features could not give a holistic picture, and always scientists faced the elusiveness of the phenomenon of wisdom.

The study of wisdom in a holistic perspective opens up a dynamic adaptive evolutionary perspective (Kincheloe, 2008; Fedosejeva et al., 2018) and supplements it with a holistic pedagogy mission (Kincheloe, 2008; Salite, 2015; Jurgena et al., 2018; Žogla, 2018).

Data Collection and Analysis Methods

The experience and activity of teachers were evaluated using the following approaches: a phenomenological approach, a written semi-structured interview and a qualitative (with the elements of quantitative) content analysis. The teachers for the written semi-structured interview were chosen randomly, using their occupational characteristics, amongst the educational staff of the schools of Visaginas, Lithuania. Thirty people between thirty-two and sixty-three years old were chosen to participate. The semi-structured interview comprises seven questions presented as a questionnaire and ordered from general questions to more specific ones. The spider chart was used to quantitatively analyse each question and, by overlaying the diagrams, to overview the information obtained as a single complex.

Results

The results of the qualitative content analysis have allowed distinguishing groups of specific categories, which teachers identify as related to the general category of wisdom: (1) the knowledge of an aim; (2) the ability to adapt; (3) the knowledge of what is necessary; (4) the acquisition and implementation of experience (activity); (5) the qualities of will; (6) the values to be aimed at; (7) communicability.

![Figure 1. Quantitative characteristics of wise people and wise teacher](image-url)
The overlay of two diagrams (Figure 1) shows that a wise person, in the opinion of most teachers, is able to acquire and practically implement experience. A wise teacher is strong-willed, able to operate values, communicable and able to adapt. In the teachers’ opinion, the knowledge of one’s aim and the things necessary, as well as the acquisition and implementation of experience are not amongst the major qualities of a wise teacher.

Figure 2. Using the characteristics of wisdom in the context of reflection of educational practice

As we can see, the examples of wisdom in practice (Figure 2), recalled by the teachers from their own experience, remain in the scope of the qualities of a wise teacher.

Figure 3. Things to be learnt and taught to achieve wisdom
The overlay of three diagrams (Figure 3) concerning the possibility of getting a wise education reveals that, in the opinions of teachers, the most essential categories are the activities aimed towards acquiring and implementing experience. Other categories of wisdom are less important and vary depending on the question.

**Qualitative Characteristics of Wisdom in Teachers’ Perspective**

Most of the teachers, as well as the results derived from the charts reveal that wisdom is manifested in a dynamic process and is primarily related to the right choice of the direction of an action:

“A wise person is the one who uses his/her knowledge in the thoughts he/she expresses and derives conclusions from them”;

“Not only a wise human possesses knowledge, but he/she also knows how to implement it, as well as he/she can make conclusions and avoid reckless actions”;

“The purpose of wisdom is to make the right decisions, choices and organise one’s life in the right way”;

“Children are ought to be taught to see the ways of solving a particular problem, providing them with an experience of the right way”;

“Wisdom can be taught to children, if they are taught to think about actions, both their own and those of the others, and to analyse them”;

“To receive a wise education is to be able to make the right choice both materially and morally. It is to be able to understand people and derive valuable lessons from your own and others’ mistakes”.

**The Examples of Wise Decisions from the Teachers’ Own Experience**

These examples show how crucial it is to understand and use a context to benefit students and to make wise decisions.

“A student presented a work that was a complete nonsense. Nevertheless, he was praised and he received a good mark, as it was his first work ever”;

“A student who is not very bright has been given a chance to continue her studies in order not to ruin her self-confidence”;

“When students came into a class sleepy due to the daylight saving time clock advances, a teacher gave them a chance to relax a bit”;

“A teacher has advised a father of a behaviour-wise problematic student to solve the problem via the head of a hobby group the student has attended, and not to do anything himself. A student listened to the advice of the person he respected and who decided if the student could continue doing his favourite sports”.

In the opinion of teachers, a wise decision does not necessarily mean to be logical. The manifestations of wisdom are related to understanding, attention and friendliness towards students, as well as to the skill to make exceptions from the rules, when it is
necessary to support students. Such supportive actions include: (1) solving conflicts, (2) advising, (3) creating a comfortable atmosphere, (4) motivating, (5) providing moral support, (6) helping to adapt.

Discussion and Conclusions

Analysing the research data on the traits that teachers perceived as wisdom recognition, it was found out that the wisdom phenomenon was complex in nature and not sufficiently assessed as a complex in educational research and education policy. Wisdom cannot be seen only as a specific content or decision without the external and internal contexts associated with them. Discerning the nature of wisdom requires a holistic perspective of pedagogy. The fact that wisdom is a dynamic phenomenon was understood by analysing and grouping together the traits of wisdom named by teachers and examples of wise action cases. It was the qualitative evaluation of the data that revealed the need to see the wisdom phenomenon in a broader framework, so that one could understand the direction of action and the specific integrative nature that became visible only within the framework of an individual’s activity, in which the individual’s experience, knowledge and conclusions were related to a particular context of the situation and became the basis, which was used by the individual to make his/her own decision.

Thus, it has become evident that it is necessary to take into account (1) the contextual nature of the wisdom phenomenon, which is directly related to learning, and supplemented with teaching, (2) that wisdom manifests itself through action and (3) has significant experience which the individual uses to structure his/her experience according to the purpose of the activity.

Consequently, a wise action is used to identify the purpose of using knowledge and conclusions for responsible organisation of life. Wisdom serves to determine the direction of action and by nature it is a dynamic process. If experience, knowledge, or use of conclusions in the wisdom phenomenon serve the purposeful achievement of life’s tasks and aims, the basis of wise action and thinking should be sought in the integration or synthesis thinking and its implementation in action.

The need for a synthesis approach and use in science and education has long been known since Aristotle’s time, as called for by the holistic approach and investigations of synergy issues. The research, in which the author has attempted to find out the teachers’ beliefs about wisdom and teachers’ wisdom, gives confidence that educational research aimed at improving the quality of education should be based on the phenomenon of wisdom, and within and around it there should be the reference system, in which the nature of sustainable education should be sought through the development of wisdom. From the perspective of the wisdom phenomenon, this is the way we can implement holistic programmes that will serve as the development of phronesis or insight of wisdom, rather than knowledge, the human-like capability that is known as wisdom, which is a feature of sustainable holistic pedagogy that should be put into the centre of sustainable education.

The research, which looked for a general opinion of teachers on wisdom and wise teachers from a broader perspective of wisdom as a phenomenon characteristic of sustainability, suggests that (1) we can trust the general meaning of wisdom that has been accumulated in human experience and also in the heritage of pedagogy, which has
especially remained in teacher education as the core of the teacher’s ability to recognise the essential qualities of the teacher’s mission within the framework of his/her personal and professional experience; (2) teachers in the recognition of wisdom refer to individual features of wisdom and complex traits that indicate the personality quality in a more holistic perspective; (3) we can trust that wisdom recognition is natural to every human being and is evolutionarily polished and continued with the accumulation of each person’s experience and ability to recognise wisdom in attitudes and relationships.

The traits identified by the teachers for recognising wisdom can be generalised by the fact that Lithuanian teachers involved in the research trusted their experience by recognising the features associated with the quality of a wise teacher personality. These features have been identified from their own personal experience by recognising different contexts in it and structuring it within the framework of their personal reporting systems.

The research has demonstrated great potential and the importance of further study of the wisdom phenomenon:

- The possibility of further development of the wisdom phenomenon for practical use by teachers in their activities as an integrated and holistic system of upbringing and development;
- The possibility of constructing a dynamic model for wise decision-making and testing its efficiency.

The research of only one case has shown the versatility of the phenomenon of wisdom in the educational process, and the importance of its use by teachers in their professional activities for reorienting to education for sustainable development.

References


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Trust in the Acquisition of Life Experience of Children Left without Parental Care

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Abstract
The children’s trust determines the relationship between various nuanced emotions and the general attitude towards themselves and the world. Children left without parental care are already subjected to negative experience from childhood, which creates a basic mistrust in people and the world. They have experienced psychological trauma, and often not only one. The authors consider this issue to be topical since children who are left without parental care lose their foundation of trust, and they do not develop productive relationships with their fellow human beings and are unhappy because these children have lost confidence during their life experience. Children who are left without parental care often have to change their living conditions from crisis centres and boarding schools to orphanages and, at best, they are immediately placed in a foster home. These children live in fear because experience shows that they often have to separate from the person they trusted, which has a persistent impact on the child in the process of acquiring a sustainable life experience. Trust builds on the quality of past life experience, relationships with relatives, other adults, friends, foster family, and other stakeholders. Trust is very important. It is very difficult to create deep trust, but very easy to break its fundamental basis. For children who are left without parental care, trust means the belief that the world and people are predominantly good, and the belief that they are good for this world. For the action research, the authors chose a target sample of respondents that interacted with the research, action, and evaluation and comparison of the results obtained in order to find out how the phenomena of trust affected the acquisition of future life experience by children left without parental care.

Keywords: children without parental care, trust, foster family, sustainability, life experience, action research.

Introduction
Living in the Anthropocene age, where people are less and less aware of each other, their relationships lack love. Often young people are establishing families, but the family as such has no value anymore. Children’s parents are focused on survival, and therefore their relationships with children are becoming more fragile, and family members lack the warm relationships. It should be noted that social “diseases” are
becoming more common, such as alcoholism, drug addiction, and children are the direct victims of these social phenomena. Children are at risk of entering the state system from an early age.

Back in history, children were considered orphans if for some reason their parents died and the children had no connection with other relatives. Nowadays, in accordance with Article 1(2) of Protection of the Rights of Child Law, a child left without parental care is a child, whose parents are not known, are missing, or due to a long-term illness are not able to exercise protection or whose parents have had the custody rights discontinued or removed (Saeima, 1998). However, if an accident has occurred with the child’s parents, there is love from other family members, relatives who are able to take care of the child. Unfortunately, it does not happen often in Latvia. Children who are left without parental care are defined by the authors of the paper as “social orphans”. It is a direct sign of unsustainability, a child’s idea that has been noticed too late. Humaneness disappears. This means that children who are left without parental care have parents and relatives who are unable to bring them up. Therefore, the state is responsible for upbringing, doing its best to improve the child’s well-being that allows the child to stay away from home. The authors consider that it is an issue of Anthropocene age, which influences not only climate change on a global scale, but also relations among people and all kind of interrelations (Millett, 2015).

Anthropocene’s age as the frame of reference (Fedosejeva et al., 2018; Salite, 2015; Salite et al., 2016) allows investigating more complex concepts. Therefore, investigations of its unsustainability issue need more holistic concepts with focus on interrelated and intermingled contexts such as complementarity of nature and human co-evolution, which provides “kumatoid” concept exploration (Salite, 2015; Zuev, 2002). For instance, if we consider “a family” and “a foster family” as the structures where a child’s development is simultaneously going on with the establishment of his relationships, so this development process should be necessarily viewed in time dimension. Furthermore, the results of this intermingle are hardly to be predicted. Here comes a similarity to the idea of kumatoid studied by Mihail Rozov (Розов, 2006), who determined the conformity based on the paradigm of modern science that coincides with contemporary needs and expectations (Świtala, 2015).

At the initial stage of trust research as well as the essence of its phenomenon, first, it is vitally important to look at the notion of the family and the foster family through the prism of kumatoid’s metaphor and types. From this point of view, we will look at the kumatoid as an environment that enables the child’s activities, actions and development necessary for the natural development and manifestation of his/her personal potential. There are specific differences in the biological family and the foster family, but in a general sense they can be seen as kumatoids. They are similar in their functions, although the child’s relations to one are based on the biological commitment to the family, a wider species and cultural human commitment. According to Rozov’s theory, both a foster family and a biological family may also be a kumatoid, which changes via activity and actions inside these fundamental structures (Розов, 2012).

A family in educational research can be investigated in a broader sense as the kumatoid, which is open to virtues and dominant influences of Anthropocene and can be investigated in the current frame of Anthropocene with unsustainable relations in society and need to renew society by development of the mission-oriented pedagogy (Salite, 2015) and sustainable family pedagogy for children without parental care. In
terms of holistic nature of kumatoid as a complex interrelated and intermingle phenomenon or notion, this is the high priority for society, pedagogy and education sphere. The goal of this challenging educational research is to develop a really transdisciplinary perspective (Fedosejeva et al., 2018; Salote et al., 2016) and create life conditions with an emphasis on spirituality and a person's spirituality, which will be revealed during the life conditions and realised via life actions (Salote, 1998). In the present research, the highlighted phenomenon of trust is related and dependent on the effects of external and internal human environment, especially in the current destructive Anthropocene era. The authors have focused on exploring the current understanding of the idea of a foster family in a broader perspective, where it is important not to lose the holistic understanding of this idea as the fundamental base of human integrity. It affects the individual's personal development, his/her relationship with the world as a whole, and his/her engagement with a foster family and society. All this can be rather helpful in finding and understanding the role of trust in spirituality.

Abraham Maslow (2011), Marija Osorina (2010), and Jean Liedloff (2003) indicate that, based on trust, the child has a positive attitude towards him/herself (I love, it means that I am good); the child is able to trust, properly assess his/her abilities (adequate self-esteem), as well as has initiative. According to American psychologist Carroll Izard (2011), trust is a hidden message without showing that one cares for the interests of others. Therefore, a child can perceive criticism and does not become angry with the people whom he/she trusts (Izard, 2011). Therefore, in the heart, the child realises that one is willing to help him/her. Being appreciated by an adult who treats him/her with confidence and respect is of particular importance for a child. Once lost, trust is very difficult to regain. Trust in life for a child becomes the basis for optimism, the belief that life is valuable, despite failures.

The goal of the research is to find out the phenomena of trust of children left without parental care and their role in acquiring a sustainable life experience. In this case, trust is seen as a lifetime, dynamic phenomenon of experience that has been initially developed in the biological family and/or in a foster family which, in its turn, is influenced by the society.

Method

Participants

The research was launched in October 2018. Twenty (n=20) respondents – children left without parental care – participated in the research.

Procedure

The study is based on the quantitative and qualitative methods, which have been used in the framework of open action research. Although action research in terms of trustworthiness and strength is sometimes considered weak and vague, it allows researching complex and nonlinear processes especially in education (Kapenieks, 2016; Salite et al., 2016). The use of different research methods made it possible to better understand the problem under consideration, as well as increased the reliability of the research results. Qualitative methods have been used for interviews with children left without
Trust in the Acquisition of Life Experience of Children Left without Parental Care

Parental care, for the analysis of their life experience, as well as for the analysis of normative documents. Quantitative methods have been used to carry out a survey of children left without parental care on the separation from persons whom they trusted at their life experience stages and the ability to rely on another person or the world as a whole. The combination of both information acquisition and analysis approaches (qualitative and quantitative) eliminates imperfections that are inevitable when using only one method. For example, the results of interviews with children left without parental care allow for a deeper understanding of their life experience stages, of the people they trusted or did not trust, as well as possible ways of solving the problem that can determine the factors that may affect and have affected the acquisition of their sustainable life experience. A target sample of respondents has been chosen for the action research, which established interaction between the research, action, and the evaluation and comparison of the results obtained (Mārtinsone & Pipere, 2011). Mathematical statistical data processing methods have been used for data processing – generic sets and sample sets for the processing of characteristics and evaluation of the obtained results. The primary mathematical statistical data processing method directly reveals the results of the research implemented in tables and in MS Excel 2007 software. For transparency, data are interpreted graphically in diagrams.

The Trust Issue in Anthropocene Age Society

In today’s society, the question of trust or distrust is raised too often, forcing the public to devote their attention to it and indicating the topicality of the issue. In Latvia, especially in social networks, a lot of discussions and conversations were triggered by the Festival of Negotiations “LAMPA” being entirely devoted to the topic of trust, which was held in June 2018 in Cēsis. On the European scale, much fear and hope are caused by the future British exit from the European Union.

This is a natural need that every person is looking for a sense of trust and it helps everyone find and, to some extent, understand the phenomenon of trust. The concept of trust is so versatile, depending on a particular science that defines it. Philosopher Russell Hardin (2002) defines trust as “encapsulated interest in which the trustee’s expectations of trustworthy behaviour depend on rational assessments of the trustee’s motivations”.

Psychologists emphasise the emotional component of trust, underlining that trust is “an emotional state of the brain, not just a behaviour” (Thagard, 2019).

Trust, from the pedagogical point of view, is based on “the belief of the learner, the confidence that he/she is able” (Ricci & Pritscher, 2015).

If an educator is willing to base his/her activities on trust, it will require not only a change in his/her teaching, but also the inclusion of trust as a basic principle in his/her curriculum. In short, it can be concluded that the reality of trust is rather heterogeneous and non-linear. However, it is worth our attention because our daily actions are based on our decision to trust or not.

Being aware of the phenomenon of trust, the second question arises about the possibility of learning to trust. Robert Solomon and Fernando Flores in their book “Building Trust: In Business, Politics, Relationships, and Life” emphasise the idea that trust is not what we have for entire life, trust can and even need to be taught and learned (Solomon & Flores, 2001). Thus, trust helps build not only meaningful relationships with others, but it is also closely related to knowledge and freedom.
This kind of learning in a foster family is becoming an environment, in which trust forms and develops, which is an essential context for children left without parental care. Trust is an issue that needs to be seen as a central phenomenon in these circumstances.

Some Signs of Life Experiences of Children Left Without Parental Care

Children left without parental care staying in orphanages, boarding schools, outside their family are still a problem in the 21st century. Their development and health have several influences that are observed at all stages of their lives – from infancy to adolescence and also later in life. If a child was ever lacking mother’s attention and love, it manifested in a later period of life.

Every child needs a family environment in order to build a life experience as mentioned in works by authors of human and holistic pedagogy, as well as philosophers. Janusz Korczak was also interested in the issue of upbringing of children; the scholar was influenced by the ideas and experiences of “new upbringing”. Korczak was inspired by John Dewey’s progressive educational theory, as well as by works of Decroly, Montessori, Pestaloci, Spencer, Froebel etc. (Lewowicki & Korczak, 1994). In his theory, Dewey offered an evolutionary ontological perspective in explaining the experience by extending the ontological perspective to understanding the roots of education. Dewey stated that personality development in the course of life depended on the type and quality of the experience the person participated in. Dewey distinguished the characteristic feature of experience: its limitation in time. An ontologically broader perspective opens up the opportunity to understand and develop a deeper understanding of the opportunities for society to perceive the causes and consequences of trust and distrust phenomenon, which is one of the key issues in foster family pedagogy.

Korczak maintains, there are no children, there are people, but with other thinking, with other experiences, with other tendencies, with different expression of feelings... (Korčaks, 1989, p. 19).

In the Second World War, thousands of children lost their parents; they were left without home, care, parents’ love and upbringing. At that time, the medical student Hermann Gmeiner (2002) was convinced that a family environment gave children a much better foundation on which to build a future life than an orphanage. After the war in 1949, Gmeiner built the first Children’s Village for orphans and abandoned children in Imst, Austria (SOS Children’s Villages).

The authors in their research examine the life experiences of children left without parental care from birth to eighteen years of age. All of them have a different life experience, except only one similar feature that they all have living parents. Let us find out what is meant by the concept of a biological family or birth family (BF); in German Herkunfts-familie (AkadTerm, 2018). Biological family is made up of individuals who only have blood relations. Biological parents, whatever they want, but not always manage to keep a family where a child has a secure feeling that is the basis for further confidence and trust.

On the basis of Section 22 of the Law on Orphan’s and Custody Courts, when the child custody of a parent is discontinued or removed, the child is removed from the biological family, and the path of his/her life experience (LE) begins and it is different
for each child and no one knows how and where the child will develop his/her future life experience.

The authors explain where the children go after their removal from the biological family. The first service providers are the orphanage (O), crisis centre (CC) or boarding school (BS) – a residential school where pupils study and live.

Orphanage is an institution that meets the needs of society in terms of culture, healthcare or social security (Latvian Oxford Living Dictionaries, 2019).

Section 1(8) of the Law on Social Services and Social Assistance states that the crisis centre is a social institution where short-term psychological and other types of assistance are provided to persons in a crisis situation (Saeima, 2003).

Foster family (FF) is a family that ensures care for a child who has been temporarily or permanently removed from his or her family environment or in whose interests remaining in his or her family is not permitted until the moment when the child may return to his or her family or, if that is not possible, is adopted, guardianship has been established (State Inspectorate for Protection of Children’s Rights).

Foster families should implement a holistic approach to develop personality of children left without parental care. The holistic approach to personality development and upbringing envisages that a person can live a harmonious life if s/he has developed all areas of life equally: mental, intellectual, physical and emotional. If the foster parents achieve that the child trusts them, they can talk about building of a sustainable life experience.

When it comes to foster families, it should be taken into account that their biological children also live in the family. The foster family should certainly take into account the relationship between their children and the adopted children who have been left without parental care. Exactly foster parents take charge of raising children left without parental care, children who have experienced the absence of a mother figure, the lack of love and attention, by following a full-fledged personality development based on trust in the surrounding world.

Personality traits of foster parents (FP) are the defining qualities of the future of children, as practically all children who live in social care institutions, whether they are from an orphanage or boarding school, have deviations in emotional, physical, or mental development, which definitely influence their behaviour; therefore, foster parents have to put in a lot of effort and wisdom to form favourable contact with such children.

At birth, the child is just an “opportunity”. The child grows and changes, and in this respect it cannot be considered that the child will keep its natural essence intact because time, events, and life experience have an impact on children’s feelings, experiences, needs, thus creating unique character and personality.

Results

The research is based on 20 respondents (10 men and 10 women); the average age of respondents is 20 years – these are the children left without parental care at the age of majority who already live independently. Every respondent has experienced his or her own way of life. In the context of the research, it has been important to find out how many years the child lived in a biological family and his/her subsequent life stages to adulthood. The data are shown in Table 1.
Table 1

The Stages of Life Experience of Children Left without Parental Care (n=20)

<table>
<thead>
<tr>
<th>Respondents</th>
<th>1st stage of life experience</th>
<th>The period of time spent</th>
<th>2nd stage of life experience</th>
<th>The period of time spent</th>
<th>3rd stage of life experience</th>
<th>The period of time spent</th>
<th>4th stage of life experience</th>
<th>The period of time spent</th>
<th>5th stage of life experience</th>
<th>The period of time spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Up to 5</td>
<td>CC 1 year</td>
<td>BS 1 year</td>
<td>FF 11 years</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2.</td>
<td>Up to 8</td>
<td>CC 1 year</td>
<td>CC 1 year</td>
<td>FF 8 years</td>
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<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>Up to 9</td>
<td>BS 3 years</td>
<td>CC 2 years</td>
<td>FF 4 years</td>
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<td></td>
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<tr>
<td>4.</td>
<td>Up to 9</td>
<td>BS 3 years</td>
<td>CC 2 years</td>
<td>FF 4 years</td>
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<td></td>
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<tr>
<td>5.</td>
<td>Up to 6</td>
<td>CC 4 years</td>
<td>FF 8 years</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Up to 2</td>
<td>O 3 years</td>
<td>FF 2 years</td>
<td>CC 3 years</td>
<td>FF 8 years</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7.</td>
<td>Up to 14</td>
<td>CC 1 year</td>
<td>FF 1 year</td>
<td>CC 2 years</td>
<td></td>
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<td></td>
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<tr>
<td>8.</td>
<td>Up to 3</td>
<td>O 9 years</td>
<td>FF 6 years</td>
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<td></td>
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</tr>
<tr>
<td>9.</td>
<td>Up to 5</td>
<td>CC 2 years</td>
<td>FF 2 years</td>
<td>O 3 years</td>
<td>FF 6 years</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>10.</td>
<td>Up to 6</td>
<td>O 9 years</td>
<td>FF 3 years</td>
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<td></td>
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</tr>
<tr>
<td>11.</td>
<td>Up to 7</td>
<td>BS 4 years</td>
<td>CC 6 months</td>
<td>FF 3 years</td>
<td>Adoption USA</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>12.</td>
<td>Up to 7</td>
<td>BS 4 years</td>
<td>CC 6 months</td>
<td>FF 3 years</td>
<td>Adoption USA</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Up to 12</td>
<td>Relatives 1 year</td>
<td>O 3 years</td>
<td>FF 2 years</td>
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<tr>
<td>14.</td>
<td>Up to 13</td>
<td>CC 1 year</td>
<td>FF 4 years</td>
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<tr>
<td>15.</td>
<td>Up to 2</td>
<td>O 2 years</td>
<td>FF 4 years</td>
<td>Adoption</td>
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<tr>
<td>16.</td>
<td>Up to 10</td>
<td>FF 8 years</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Up to 12</td>
<td>Relatives 2 years</td>
<td>O 1 year</td>
<td>FF 1 year</td>
<td>O 2 years</td>
<td></td>
<td></td>
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<tr>
<td>18.</td>
<td>Up to 16</td>
<td>FF 2 years</td>
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<tr>
<td>19.</td>
<td>Up to 13</td>
<td>CC 2 years</td>
<td>FF 3 years</td>
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<tr>
<td>20.</td>
<td>Up to 11</td>
<td>CC 3 years</td>
<td>FF 4 years</td>
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</tbody>
</table>


The data collected show that each of the respondents has their own path of life experience. At best, those children left without parental care are successful who come to the foster family right away. In our study, only two respondents experienced such a situation. The rest had to live in orphanages, crisis centres and boarding schools. It can be seen that the period of their stay was different for each respondent. The time spent by respondents in the biological family also varied from 2 to 16 years.

Figure 1 shows the stages of life experience of children left without parental care. Undoubtedly, every child from birth has his/her biological parents. Within the framework of the research, it has also been proven that 100% of children had their first life experience in their family. Due to different life situations (violence against the child, no care for the child), the children are removed from their biological family, and the next stage of life experience begins for the children. Of course, this stage is different for every child; out of 20 respondents who participated in the study, 40% came to the crisis centres, 20% to orphanages and 20% to boarding schools. 10% of respondents stayed with their relatives and 10% came to foster families. Out of 20 respondents, 18 respondents underwent the 3rd stage of life experience, changing the environment, seeking for shelter, pro-
Trust in the Acquisition of Life Experience of Children Left without Parental Care

protection, and comfort. 56% of respondents came to foster families, 28% to crisis centres, 11% to orphanages, and 5% to boarding schools. The 4th stage of life experience was undertaken by 12 out of 18 respondents, 67% of whom came to foster families, 17% to crisis centres, 8% to orphanages and 8% were adopted. The 5th stage of life experience was undergone by 5 respondents, 40% of whom came to foster families, 40% were adopted and 20% came again to orphanages. Children left without parental care have a difficult and complicated way of life, constantly changing the usual circumstances, people around them. Children lose faith that at times when support will be needed, they will receive it, on the contrary – they expect to be rejected. Data are shown in Figure 1.

![Figure 1. The stages of life experience of children left without parental care (n=20)](image)

Here are some examples of the respondents’ life experience:

Edgars (24) – The biological mother gave up the child when he was 2 years old. The child came to the orphanage. When Edgars was 4 years old, he was taken by FF. The boy stayed in the family for 4 years and he was happy, then the foster mother became seriously ill and the FF had to give up the boy. Edgars again came to the orphanage until he was taken again by a new FF. When Edgars was taken by a new FF, the boy was already 10 years old. Edgars had problems at school with learning and behaviour. The boy repeated the grade twice. When he was 16 years old, Edgars had a conflict with the FF, after which the FF gave up Edgars, bringing him to a crisis centre. Edgars realised that he did not want to live in the crisis centre, but wanted to successfully finish school. He addressed his teacher, whose family had the status of foster family to take him to the FF. Thus, Edgars at the age of 16 years came to the FF. The boy finished grade 9 when he was 18 years old. He pursued studies and became a waiter. Now he has a good job. He is married and has a daughter. He regularly communicates with the FF.

Ritvars (21) was removed from the family when the boy was 14 years old and he came to a crisis centre. The FF was quickly found for Ritvars. The boy had behavioural problems (stealing and roving). For years, the boy was roving, stealing, and spending time with young people of disadvantaged background until he was in the focus of the police. Ritvars was a wise boy but he did not
want to learn. In the FF, his behaviour was good, but out of house, he started misbehaving. Several times he stole. He smoked, tended to use alcohol. He regularly lied. He could not explain his behaviour. The boy’s goal was to get to the prison; he explained it by the fact that only strong men came out of prison. When the boy finished the secondary school (9th grade), the FF gave him up. Ritvars came to a crisis centre. The boy’s behaviour did not improve, he continued to rove, steal. School teachers could not cope with Ritvars; he was committed to be imprisoned. And his wish came true, the boy committed several offences and got imprisoned in the colony.

Each of the 20 respondents who participated in the study has their own life story, their own experience, which is successful and unsuccessful. Continuing the research, the authors have identified whether during the stages of life experience they had to separate from the person they trusted and could rely on. The obtained data show that 20 respondents had to lose their trustee (the trusted people) 42 times, and 32 respondents formed basic mistrust because deliberately and sometimes unintentionally they avoided establishing a lasting relationship, tried to survive without love and support from other people. Data are shown in Figure 2.

Figure 2. Respondents’ replies regarding separation from the person they trusted (n=20)

In the context of the research, it has been important to find out the respondents’ opinion on what qualities a person should have to trust him/her. Data are shown in Table 2.

Table 2
The Qualities of a Person to Trust Him /Her

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to understand me</td>
<td>3</td>
<td>15 %</td>
</tr>
<tr>
<td>Rich life experience and wisdom</td>
<td>3</td>
<td>15 %</td>
</tr>
<tr>
<td>Fulfilment of promises and the one who does not deceive</td>
<td>4</td>
<td>20 %</td>
</tr>
<tr>
<td>Generosity</td>
<td>2</td>
<td>10 %</td>
</tr>
<tr>
<td>Common interests</td>
<td>2</td>
<td>10 %</td>
</tr>
<tr>
<td>Support</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Spending time together</td>
<td>1</td>
<td>5 %</td>
</tr>
<tr>
<td>Good adviser</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Ability to keep secrets</td>
<td>3</td>
<td>15 %</td>
</tr>
<tr>
<td>Caring</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Fair</td>
<td>1</td>
<td>5 %</td>
</tr>
<tr>
<td>Good adviser</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Helps gain a life experience</td>
<td>1</td>
<td>5 %</td>
</tr>
<tr>
<td>Responsible</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Total replies submitted</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
Within the framework of the research, it has been important to find out the most important characteristics that the children left without parental care took over from the person they trusted during the accumulation of their life experience. The collected data on the aspects of trust/distrust in terms of sustainability demonstrate that the main aspects mentioned by the respondents are honesty, love, good nature and care for their fellow human beings. Five respondents do not trust anyone because their hope did not correspond to the reality of life. The other answers contained: fulfilling one’s responsibilities and treating one’s fellow human beings politely; good attitude; honesty and achievement of the chosen goals; honesty and order in things; fulfilling one’s household duties, being accurate and honest; achieving something in life – it is necessary to learn much, to work and be honest; I did not trust anyone, relied solely on myself; I learned a lot from foster parents. All one needs to live independently; to know how to care for children; I do not trust anyone; good nature and love towards fellow human beings; love towards people; help the weak; nothing; it is not good to drink alcohol; take care of one’s family; I do not trust anyone – everyone is lying around; I only trust myself and my friends; I do not trust anyone, I live as I want; I trusted my parents, and they deceived me, and now I do not trust anyone.

Paying attention to the fact that most of the respondents who participated in the research had to experience a frequent change of the environment, fellow human beings, the conditions, it is not surprising that the children left without parental care do not have the ability to trust, if they had experienced that life was cruel to them. The existence of “social orphan” in this world already means that they have a relationship with it. Children come to a situation that they cannot choose by themselves. Parents, familiar and unfamiliar people, as well as all objects and animals are part of the world which a child enters. Relationship with the world is mainly about understanding the rules of the game, called life. By trusting someone, the children learn to live, improve the quality of their lives, looking for ways to gain a sustainable life experience.

Conclusions

Twenty respondents (10 men and 10 women) participated in the study; the average age of respondents was 20 years.

Within the framework of the action research, the stages of life experience of children left without parental care from birth to adulthood have been clarified and there are 5 stages of changing the environment, normal circumstances, and fellow human beings. The survey found that 20 respondents had to lose their trustee (the trusted people) 42 times, and 32 respondents formed basic mistrust in fellow human beings.

The research enabled to answer the question: “What qualities should a person have to be able to trust him/her?” From the respondents’ perspectives, it can be concluded that the key aspect is the fulfilment of promises and the person who will not deceive, the ability to keep secrets, the rich life experience and wisdom, the ability of the trustee (the trusted people) to understand the child.

The collected data on the aspects of trust/distrust in terms of sustainability demonstrate that the components of trust are openness, frankness, sincerity, honesty, the ability to keep promises, benevolence and respect. However, if there is mistrust, then the child is led by different fears, distrust in the world and fellow human beings.
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Pro-ecological Views of Kosovar Teachers Measured by Endorsement of the New Ecological Paradigm Statements

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Abstract
The New Ecological Paradigm (NEP) scale is a survey-based metric devised to measure the environmental concerns of groups of people through using a standard survey instrument. This is the first research to measure how in-service teachers perceive the NEP scale in Kosovo. The aim of the current study was to assess the concerns of teachers in Kosovo about environment in the age of Anthropocene by supporting anthropocentric or eco-centric views through using NEP scale as a standardized instrument. Thus, the research was an attempt to investigate how teachers perceived changes in the environment and how much they agreed with the 15 NEP statements. This study followed a quantitative methodology, employing a questionnaire to secure socio-economic data about the teachers, the information sources that they used for environmental information, their perceptions about changes in the environment in the past decade, expectations for the next decade, and the support of the NEP’s statements. A total number of 88 primary school teachers (teaching grades 1–5) participated in this study who came from three most populated regions of Kosovo. The teachers responded to the questionnaire based on their teaching experience, sources of environmental information which they used, their perceptions and expectations in the environmental changes, and their attitudes toward the NEP statements. The results of the research showed that teachers’ concerns about environmental developments were mostly consistent with the views of the NEP scale or pro-ecological worldviews. The survey results provided a positive indication that Kosovar teachers sought to offer a new eco-centric worldview for the next generation, instead of the anthropocentric one in which they had been living.

Keywords: anthropocentrism, eco-centrism, dimensions, paradigm, statements.

Introduction
Nature and people have had a permanent interdependent relationship from earliest human origins. However, the relationship between humankind and the rest of nature has for centuries been central to the debate over management of natural resources. Is humanity created to rule over nature or only to be a part of the natural world? Are natural resources finite or infinite? These are among the many ecological questions
generating discussions and societal concerns in the past. Fedosejeva et al. (2018) pointed out that in spite of many global initiatives and local activities launched on the implementation of the idea of sustainable development, the 21st century was claimed to be the phenomenon of the Anthropocene age, which became a reality that had to be recognized not just in science where the phenomenon had already been known (Kress & Stine, 2017; Millett, 2015). The phenomenon of Anthropocene has been gradually revealed and become a phenomenon that demonstrates the unsustainable quality of the ecological, cultural, and social relationship of a human being. This situation has already acquired the name of the Anthropocene era in recent years (Figueroa, 2017).

It is important for the development of responsible environmental management (LaTrobe & Acott, 2000) that there is an understanding of people’s attitudes and value systems about the environment. Especially, since the 1970s (Erdogan, 2009), people all over the world have increasingly witnessed industrial and nuclear accidents, oil spills, mismanagement of solid and hazardous waste, depletion of resources, environmental deterioration, global warming and climate change, environmentally induced diseases and other environmental problems. With mounting awareness of environmental problems, one can recognize that humans are not immune to ecological constraints and the future generations and ecosystems are in jeopardy (Cordano, Welcomer, & Scherer, 2003; Vlek & Steg, 2007). This jeopardy asks for understanding of two core issues. First, there is the need to understand the linkage of industrial production, distribution of goods and consumption. Second, there is the need to connect these environmental issues with the belief systems and values that underlie these problems (Dunlap & van Liere, 1978). Nevertheless, many environmental problems stem from the widespread anthropocentric world view prevalent in the past. According to such an anthropocentric view, humans are the superior nature; there is abundance of natural resources and there is no need for conservation; human beings, by virtue of possessing culture and technology, are able to adapt nature to human ends, rather than adapt to the natural environment. Based on this view, social sciences often treated humans as they were exempt from ecological constraints (Dunlap, 1980). These views have been manifested in a set of beliefs and values called the “Dominant Social Paradigm” (DSP). DSP embraces a belief in limitless resources of the planet, continuous progress of society and the necessity of economic growth. Moreover, it emphasizes faith in the problem-solving abilities of science and technology and strong emotional commitment to a laissez-faire economy and to sanctity of private property rights (Albrecht, Bultena, Hoiberg, & Novak, 1982).

A shift from DSP to an eco-centric “New Environmental Paradigm” (NEP) has emerged with increasing concerns about the environment. The NEP concentrates on beliefs about humans’ ability to upset the balance of nature, the existence of limits to growth for human societies and humanity’s proper rule over the rest of nature (Dunlap, Van Liere, Mertig, & Jones, 2000). The NEP worldview is based on six pillars: high valuation of nature; generalized compassion toward other species, other peoples, and other generations; careful planning and acting to avoid risks to both humans and nature; recognition of limits to growth to which humanity must adapt; appeal for creation of a society based on cooperation, openness and participation; and the need for a new form of politics that is consultative, participatory in nature, and emphasizing foresight and planning (Milbrath, 1984). In contrast to anthropocentrism, eco-centrism is characterized by the centrality of ecosystems or the biosphere, varying degrees of egalitarianism between species and valuing the non-human species, ecosystems and life itself regardless of its
use-value for us (Kortetmäki, 2013). Eco-centrism is synonym of pro-ecological attitudes of the peoples.

The NEP scale, sometimes referred to as the revised NEP, is a survey-based metric devised by the US environmental sociologist Riley Dunlap and his colleagues. It measures the environmental concerns of groups of people through employing a standard survey instrument. The original NEP had 12 environmental items (statements) that could be scaled on the basis of how populations responded to them. The original NEP was criticized for several shortcomings, including a lack of internal consistency among individual responses, poor correlation between the scale and behavior, and “dated” language used in the instrument’s statements. Dunlap and his colleagues, then, developed the NEP scale to respond to criticisms of the original NEP scale. This is sometimes referred to as the revised NEP scale to differentiate it from the original NEP scale.

Dunlap and van Liere (1978) argue that their NEP scale is reliable, valid, and one-dimensional. Contrary to Dunlap and van Liere (1978), researchers such as Gooch (1995), Bechtel, Corral-Verdugo, Asai, and Riesie (1999) and Nooney, Woodrum, Hoban, and Clifford (2003) identified two dimensions within the NEP scale. Moreover, Manoli, Johnson, and Dunlap (2007) identified three dimensions. Besides, LaTrobe and Acott (2000) identified four dimensions within NEP scale. Furthermore, Luck (2003) identified five dimensions in the NEP scale: anti-anthropocentrism (AA), anti-exclusion (AE), balance of nature (BN), ecological crisis (EC) and limits to growth (LG). The multidimensional nature of the NEP scale suggests that measuring environmental attitudes may be more complex than was originally thought. Researchers suggest that there is not enough evidence for a fixed number of dimensions, and further research in that area is recommended (Lalonde & Jackson, 2002).

The revised NEP scale is constructed based on 15 statements. Respondents are asked to indicate the strength of their agreement or disagreement with each statement. Responses to these 15 statements are, then, used to construct various statistical measures of environmental attitudes and concerns. Studies using the original and revised NEP focused on the selected socio-economic groups of people to provide information on the nature of environmental worldviews. Researchers such Johnson, Bowker, and Cordell (2004), Poortinga, Steg, and Vlek (2004), and Noblet, Anderson, and Teisl (2013) conducted cross-sectional analyses by using various socio-demographic, cultural, attitudinal, and behavioral variables. Other researchers used NEP to highlight attitudes toward specific environmentally relevant matters, such as the national parks (Noe & Snow 1990), nature based tourism (Luzar, Diagne, & Henning, 1995), etc. Moreover, Bechtel et al. (2006), Leung and Rice (2002), and Petegem and Blieck (2006) were interested in using the NEP scale in cross-national or cross-cultural comparisons. Some researchers worked with a single selected population such as university students (Rideout et al., 2005; Harraway et al., 2012), teacher students (Aydos & Yagci, 2015), pre-service science teachers (Ozsoy, 2012) and they tried to test the scale and determine the nature of the general distribution. In Kosovo, Veselaj and Torkar (2016) compared environmental worldviews about sustainable development and climate changes between science non-major and major teacher students. Furthermore, Lindemann-Mathies and Hyseni (2009) evaluated knowledge and perceptions of the stakeholders and laypersons about biodiversity issues.

In Kosovo, DSP and NEP are new concepts and no research until now has sought to address these topics. There are no studies assessing attitudes regarding DSP or the
original and revised NEP. The Republic of Kosovo, once part of the Socialist Federal Republic of Yugoslavia, underwent a bloody war in 1998–99, part of the wider wars of Yugoslav secession. After the war, the country was a territory under UN interim administration, with significant international community support in post-conflict reconciliation. The country of 1.8 million people declared its independence on 17 February 2008. Environmental problems in Kosovo had accumulated over the last three decades as the consequences of the uncontrolled use of natural resources, the industry growth, and the almost entirely coal-based energy production with high pollution, with lack of appropriate environmental policies, laws, and institutions to address these problems (Veselaj, 2013). Some of the main factors that exacerbate the current environmental situation are as follows: 97% of the country’s energy is based on lignite coal; lack of waste-water treatment; very poor waste management amidst unplanned and uncontrolled urbanization; and a weak road transport system with very old diesel cars and poor road infrastructure. As a result, the environment in Kosovo has been degraded with severe negative impact on public health. This situation is partly due to a DSP approach and anthropocentric thinking which has characterized the country’s economic and social development in recent decades. The public’s awareness about environmental problems and environmental education is still limited (Veselaj & Torkar, 2016). While facing many environmental burdens, Kosovo possesses a rich natural environment, and the value it places on biodiversity can be a motivating factor contributing toward potential acceptance of the NEP values. At present there are 116 protected areas covering 118,913 hectares, 10.9% of the territory of the Republic of Kosovo (Veselaj & Mustafa, 2015).

The education system in Kosovo includes pre-school education (children aged 1–5) and a pre-primary grade for children (ages 5–6). Formal pre-university education (ages 6–18) comprises primary (grades 1–5), lower secondary school (grades 6–9) and upper secondary (grades 10–12) levels. In 2011, a new Curriculum framework was adopted; and one year later, three core curricula for each of the educational level were adopted (Veselaj & Krasniqi, 2014).

Method

The participants of the survey consisted of teachers who took part in the training on the use of “Green Pack Junior,” an environmental educational kit for students in grades 1–5 intended to promote environmental protection and sustainable development. The participants were selected based on convenience sampling. The sample can be understood as pilot in its nature, considering the overall number of primary education level teachers. Teachers were informed about the survey questionnaire at the beginning of the training course, while participation was an individual choice. From 99 trainees, the survey sample was composed of 88 teachers, of which 82 or 93.2% were female, and 6 (6.8%) were male teachers. These teachers taught all subjects within curricular fields, including environmental content in cross-curricular fields. Three municipalities where respondents live and work have been severely affected by the coal power plants in operation (“Kosovo A” and “Kosovo B”), thus, they are among the most polluted urban areas of Kosovo. The majority of the respondents (77.2%) were from the urban areas of Prishtina, Fushe Kosova and Obiliq while 22.8% were from rural schools. The most frequent age of teachers was 30–39 years old (37.5%), followed by those aged 40–49 (31.8%), 20–29 (19.3%), and 50–59 years (11.4%). The working experience of respon-
dents ranged from less than 5 years to more than 25 years. Overall, 72% of the responding teachers had 15 years or less of working experience, reflecting the relatively young age of the elementary school teaching staff in the selected municipalities.

During the conduction of this study, we employed a three-part questionnaire. The first part contained the socio-economic data of the respondents such as residence (urban or rural), gender, working experience, interest and knowledge of the environmental problems. The second part addressed respondents’ perceptions of the changes in the environment in the last 10 years and their environmental expectations over the next 10 years. The third part which was the main part addressed the respondents’ compliance with the 15 statements of the new ecological paradigm scale, using the Likert scale (Likert, 1932) ranging from: strongly agree, agree, undecided, disagree and strongly disagree.

**Results and Discussion**

One of the aims of the current study was to evaluate the interest of the teachers about the environment in which they live; measuring the level of interest from “very high,” “high,” “some interest,” “small interest” to “not interest at all.” The majority of teachers (48) expressed very high interest in the environmental issues, 29 teachers showed high interest, while 11 show some interest. It is worth mentioning that no teacher was uninterested in environmental issues.

The questionnaire also queried the teachers about the sources which they used for securing information and knowledge about the environment and environmental problems (see Fig. 1). Three resources: TV, the internet, and their own schooling were identified as the primary points of access to information about the environment. Figure 1 shows a variety of information resources used by teachers. Of the three sources of environmental information used the most by the teachers, 75 respondents cited TV documentaries, 71 cited the internet sources, and 64 cited their prior education. Teachers rarely used radio (8) and newspapers (11) as information sources.

![Figure 1. Sources used by teachers for environmental information](image-url)
That may be either because the audio and daily newspapers rarely give space to environmental issues in Kosovo, or it may be that respondents rarely listen to the radio or read the daily press.

One of the objectives of the research was to discover how teachers perceive environmental changes in the past decade at the global and Kosovo level (Fig. 2).

**Figure 2.** Perceived trend of global and national environmental changes over the past 10 years

The environmental situation in the past decade was generally perceived by the teachers as deteriorating at both the global and country level. Eighty-one respondents (92%) labeled the situation as worsening at the global level; 77 (87.5%) also saw deterioration at the country level. Only 6 respondents, or 6.8%, identified improvement in the environmental situation at the global level in the past decade, and only 7 respondents (7.9%) saw such an improvement at the country level. Only one teacher evaluated the
global environmental situation to be unchanged over the past decade, and three found the situation unchanged at the national level.

When respondents were asked to make predictions regarding environmental developments within next decade (Fig. 3), 75% of them expected improvement of the environmental situation at the global level, 13.6% expected further deterioration, while 10.2% saw the environmental situation as unchanging. At the country level, 60.2% of respondents expected further deterioration of the environment; 19.3.7% expected improvement, and 14.8% saw the situation remaining the same while 5.7% have no stand.

The core of the survey involved respondent reaction to the revised NEP statements (Table 1). Fifteen statements in this research were divided and analyzed in five distinct categories according to Lück (2003) dimensions of the NEP scale.

### Table 1

**Agreement of Kosovo Teachers with Items of NEP**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We are approaching the limit of the number of people the earth can support</td>
<td>LG 7.9</td>
<td>29.6</td>
<td>12.5</td>
<td>44.3</td>
<td>5.7</td>
</tr>
<tr>
<td>2. Humans have the right to modify the natural environment to suit their needs</td>
<td>AA 20.5</td>
<td>34.1</td>
<td>1.1</td>
<td>27.3</td>
<td>17.0</td>
</tr>
<tr>
<td>3. When humans interfere with nature it often produces disastrous consequences</td>
<td>BN 2.3</td>
<td>4.6</td>
<td>5.7</td>
<td>57.9</td>
<td>29.5</td>
</tr>
<tr>
<td>4. Human ingenuity will insure that we do not make the earth unlivable</td>
<td>AE 3.4</td>
<td>5.7</td>
<td>10.2</td>
<td>33.0</td>
<td>47.7</td>
</tr>
<tr>
<td>5. Humans are severely abusing the environment</td>
<td>EC 0</td>
<td>5.7</td>
<td>1.1</td>
<td>55.7</td>
<td>37.5</td>
</tr>
<tr>
<td>6. The earth has plenty of natural resources if we just learn how to develop them</td>
<td>LG 0</td>
<td>1.1</td>
<td>2.3</td>
<td>53.4</td>
<td>43.2</td>
</tr>
<tr>
<td>7. Plants and animals have as much right as humans to exist</td>
<td>AA 1.1</td>
<td>1.1</td>
<td>0</td>
<td>39.8</td>
<td>58.0</td>
</tr>
<tr>
<td>8. The balance of nature is strong enough to cope with the impacts of modern industries</td>
<td>BN 10.2</td>
<td>51.1</td>
<td>15.9</td>
<td>15.9</td>
<td>6.9</td>
</tr>
<tr>
<td>9. Despite our special abilities humans are still subject to the laws of nature</td>
<td>AE 0</td>
<td>20.4</td>
<td>13.7</td>
<td>54.5</td>
<td>11.4</td>
</tr>
<tr>
<td>10. The so-called “ecological crisis” facing humankind has been greatly exaggerated</td>
<td>EC 15.9</td>
<td>44.3</td>
<td>9.1</td>
<td>21.6</td>
<td>9.1</td>
</tr>
<tr>
<td>11. The earth is like a spaceship with very limited room and resources</td>
<td>LG 3.4</td>
<td>19.3</td>
<td>18.2</td>
<td>48.9</td>
<td>10.2</td>
</tr>
<tr>
<td>12. Humans were meant to rule over the rest of nature</td>
<td>AA 1.1</td>
<td>30.7</td>
<td>15.9</td>
<td>46.6</td>
<td>5.7</td>
</tr>
<tr>
<td>13. The balance of nature is very delicate and easily upset</td>
<td>BN 1.1</td>
<td>9.1</td>
<td>5.7</td>
<td>59.1</td>
<td>25</td>
</tr>
<tr>
<td>14. Humans will eventually learn enough about how nature works to be able to control it</td>
<td>AE 0</td>
<td>14.8</td>
<td>10.2</td>
<td>53.4</td>
<td>21.6</td>
</tr>
<tr>
<td>15. If things continue on their present course, we will soon experience a major ecological catastrophe</td>
<td>EC 1.1</td>
<td>6.9</td>
<td>9.1</td>
<td>44.3</td>
<td>38.6</td>
</tr>
</tbody>
</table>
1. **Limits to Growth (LG) dimension.** NEP statements 1, 6, and 11 address the development and equitable use of resources, as well as the capacity for human intervention in, and exploitation of, nature (Fig. 4). Regarding the concern which we are approaching the Earth’s population capacity (Statement 1), 50% of respondents agreed, and 37.5% disagreed, while 12.5% were undecided. In response to the statement that the planet has enough resources, but humans have to use them wisely (Item 6), 96.6% of the respondents agreed, while only 2.3% disagreed. In response to the view that the Earth is like a spacecraft with limited resources (Item 11), 59.1% of respondents agreed, 22.7% disagreed while 18.2% were undecided. Overall, half of the respondents believed that we are approaching the population and resource capacity of the Earth, almost all respondents believed in enough resources of the Earth under condition of wise use, while majority of them supported the idea of the Earth as spacecraft with limited resources.

![Figure 4. Attitudes of respondents about limit to growth (LG) statements: 1, 6, and 11](image)

2. **Anti-Anthropocentrism (AA) dimension.** NEP values reject the DSP worldview that nature was primarily created for use by and consumption by humankind (Fig. 5). In response to item 12, that humans are meant to rule the rest of nature, 52.3% agreed with the statement, 31.8% disagreed, while 15.9% of respondents remained undecided. On item 2, that people have the right to adjust nature for their own needs, more than half of respondents (54.5%) disagreed, while 44.3% saw this as acceptable. Almost all respondents (97.7%) agreed that plants and animals have as much right to exist as humans (Item 7). Overall, more than half of respondents supported the idea of humans continuing to rule the rest of nature, more than half did not support the idea that humans have the right to modify nature to suit only their own needs. Almost all respondents gave to plants and animals the same right to exist as humans.
3. **The Balance of Nature (BN) dimension** – NEP values express concern that human activities jeopardize the balance of nature (Fig. 6). In response to the statement that human interference with nature often produces disastrous consequences (Item 3), 87.5% of respondents agreed, 6.8% were undecided, and 5.7% disagreed. Regarding item 8, that the balance of nature is strong enough to cope with the impact of modern industry, the majority of respondents (61.4%) disagreed, 22.7% agreed, and 15.9% remained undecided. Overall, ¾ of respondents believed the balance of nature to be very delicate; more than ¾ were concerned with disastrous consequences of human interference with nature, while more than half of respondents did not believe that the power of nature could counterbalance the impact of modern industry.
4. Anti-Exclusion (AE) dimension. NEP rejects the value that DSP places on human exclusivity. DSP envisions that humans are not limited by nature. Hence, human systems of control should dominate over natural constraints. By contrast, NEP opposes the exclusivity of humankind vis a vis nature, thus the value of “Anti-Exclusion” is addressed (Fig. 7). Regarding the statement that human intelligence would assure that the Earth never became uninhabitable (Item 4), 80.7% of respondents agreed, 10.2% were undecided, and 9.1% disagreed. In the case of item 14, that people would manage to learn how to control nature, 75% agreed, 10.2% were undecided on the matter, while 14.8% disagreed.

Figure 7. Attitudes of respondents about anti-exclusion dimension (AE) statements: 4, 9, and 14

Despite the confidence shown by respondents in human ability to control nature in Fig. 5, the same respondents in item 9 indicated that humans, despite their abilities, are still subject to the laws of nature. On item 9, 62.5% agreed that humans are still subject to natural laws, 19.3% disagreed, and 12.5% were undecided. Overall, more than ¾ of respondents believed that, as intelligent beings, humans would avoid making Earth uninhabitable, ¾ of them believed that humans would learn enough to control nature, and majority of respondents accepted the proposition that humanity was still subject to the laws of nature.

5. Ecological Crisis (EC) dimension. NEP assumes that humans are abusing the environment, and with potentially disastrous consequences (Fig. 8). In line with this NEP assumption, more than 60% of respondents disagreed that the “ecological crisis” is being exaggerated (item 10), only 22.7% agreed, and 9.1% were uncertain about the issue.
Figure 8. Attitudes of respondents about ecological crisis dimension (EC) statements: 5, 10, and 15

On the proposition that humans are seriously abusing the environment (Item 5), 93.2% of respondents agreed, while 5.7% disagreed. Regarding item 15, the concern that continued abuse of the environment would yield an imminent ecological catastrophe, 82.9% of respondents agreed, 9.1% were uncertain, while only 8% disagreed. Overall, about 2/3 of respondents believe that the ecological crisis is not something exaggerated by environmentalists, and almost all respondents are convinced that our abuse of nature is severe. Not unexpectedly, therefore, 82.9% of respondents concerned that without a change of existing course, an ecological catastrophe loomed.

Conclusions

This is the first effort to test public attitudes toward NEP scale in Kosovo, a country where the inherited environmental situation and environmental developments in the last decade were seen by 90% of the respondents as deteriorating, both at global and local levels. At a global level, respondents believed that there could be major improvements in the coming years. This may be related to the attention paid to global environmental developments in the last decade, such as Paris Accords, which were at the discussion stage when the survey was conducted. The importance of the global community (especially EU countries where large numbers of respondents’ families have lived since the 1990s) has given to the environment through environmental conventions, global policy documents, and global conferences may be inspiring this optimism. In contrast to the global level, respondents expected a further deterioration of the environmental situation in Kosovo. This may reflect the fact that, since the end of wars of Yugoslav secession of the 1990s, Kosovo institutions have lacked environmental protection and sustainable development principles in their public policy agendas. There is too little sustainable investment in the environment. Kosovo is not yet party to any environmental convention that imposes requirements for better environmental performance. Environmental education, both formal and informal, is in its very initial stages after the new national curriculum is adopted. Despite the concerns of the teachers who were surveyed, environmental awareness by the public at large is still at quite a low level.

One of the most difficult questions in environmental philosophy is the debate between anthropocentric and eco-centric accounts of value. The teachers responding to
this survey were probably the first ones in Kosovo to come into direct contact with NEP statements, so the results are original and largely supportive of the pro-NEP approach and eco-centric view. In statements related to the anti-exclusivity of humans, or human “anti-exclusion”, most respondents hoped that human intelligence would avoid the risk of making the Earth uninhabitable and that this ingenuity would enable man to control nature endorsing anthropocentric view. Most respondents agreed that, despite this power of human intelligence, humankind would be still subjected to the laws of nature, showing eco-centric view.

In statements related to NEP’s anti-anthropocentrism dimension, survey respondents almost completely agreed that plants and animals had the same rights to live as humans (strong eco-centric view). In contrast, half of respondents, nevertheless, believed that humankind was created to rule over nature, and that humans had the right to adapt nature to their own needs supporting anthropocentric view. Regarding the NEP dimension of the limits to growth and the anti-anthropocentrism, the vast majority thought that the land resources were sufficient, only we needed to know how to manage them; supporting the anthropocentric view. However, half of the respondents agreed that we had come close to the population capacity limit that the Earth could hold endorsing eco-centric view.

NEP statements about the balance of nature dimension and threat of human intervention in nature are supported by most of the teachers. Thus, the vast majority of respondents agreed that the balance of nature was subtle and vulnerable, and recognized the devastating consequences of human interference. Most respondents admitted that the balance of nature could not withstand the growing needs of modern industry. All three previous statements endorse eco-centric view of respondents. The NEP statement about the impending ecological crisis knocking on the doors of humanity was not seen as a “false alarm,” but a reality with consequences that we face every day: climate change, hurricanes, droughts, floods, new environmentally caused health problems etc. The vast majority of teachers agreed that we were badly abusing the environment, and as a consequence we were headed toward an ecological disaster if this continued, strongly supporting eco-centric.

This is the first pilot test using NEP scale to measure environmental concerns among Kosovar in-service teachers. In the future, the survey sample needs to be expanded with other teaching staff in other levels (primary, low and high secondary level) where the number of teachers is 22,744 (MEST, 2018). Moreover, for further assessment of anthropocentric and eco-centric views, the NEP scale may be tested with teacher-students and other socio-economic groups to determine how other economic sectors of the country perceive NEP values and propositions, as well comparative studies with other countries of similar groups.
References


Pro-ecological Views of Kosovar Teachers Measured by Endorsement.


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Textbooks as Resources for Education for Sustainable Development: A Content Analysis

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Abstract
If we intend to successfully integrate Education for Sustainable Development (ESD) in the general educational programs, it is important to utilize available methods and resources. This paper argues that English Language Learning textbooks in Iran have the potential to be useful resources and a viable springboard for the implementation of ESD. For this purpose, the present study explores the content of English textbook series developed by Iranian authors through the lenses of ESD. The framework for analysis was based on UNESCO’s Earth Charter and the Roadmap for Implementing the Global Action Program on ESD. The findings reveal that the themes of sustainability are present in these English textbooks to a good extent. However, the results suggest that there must be a more even distribution of such themes throughout the series. Also, the role of the teacher as a facilitator in developing discussions around such themes is highlighted.

Keywords: Education for Sustainable Development, EFL, ESL, textbook, content analysis, resource.

Introduction
Sustainability, as an unavoidable step for human beings toward living in harmony with the natural environment, has been emphasized in recent decades. In line with the international efforts for establishing sustainability as an essential concept in human societies, the UN named a decade, from 2005 to 2014, the United Nations Decade of Education for Sustainable Development. Although educating people about this theme may not be enough to ensure a more peaceful and harmonious life with nature, it initiates an awareness raising agenda that can be influential in integrating such ideas with the existing thought systems among different peoples. Rieckmann (2018, p. 39) outlines the scope of Education for Sustainable Development as:

*Education for Sustainable Development (ESD) aims to develop competencies that enable and empower individuals to reflect on their own actions by taking into account their current and future social, cultural, economic and environmental impacts from both a local and a global perspective.*
Education has a transformative function and can be the site for creating a culture of sustainability (Cutanda & Murga-Menoyo, 2014). UNESCO has pinpointed the important role education plays in bringing about change in societies:

*Only education and learning at all levels and in all social contexts can bring about this critical change. Education is a fundamental lever of change contributing to poverty eradication, sustainable development, equity, and inclusiveness. It is also a means of realizing broader social, economic, political and cultural benefits. It empowers all people of all ages with the knowledge, skills, and confidence they need to shape a better future.* (UNESCO, 2012, p. 13).

When considering a fundamental change in the belief system and education of any country, it becomes obvious that this change requires a great deal of work in various fields. This might include areas such as teacher training, curriculum development, and of course material development among others. Although this transformation needs to take place in general education, its importance can be even more evident in language classrooms. Since language cannot be separated from culture, the people who learn a language are exposed to the culture of that language. As McDervitt (2004) puts it, cultural literacy even to some extent is necessary when learning a language. Therefore, considering the position of English as an international language in the world, the concerns for sustainability must have a place in English classes. English can be the proper medium to introduce and discuss the principles of sustainability. Therefore, it can pave the way for changes in the thoughts and beliefs of learners.

The sources for an EFL/ESL (English as a Foreign Language, English as a Second Language) class vary in different contexts with regard to the characteristics of the learners, learning contexts, teachers and language school management. However, the most commonly used sources are the textbooks. As Hutchinson and Torres (1994, p. 323) put it “The textbook can be not just a learning program for language content, but also a vehicle for teacher and learner training”. The content of communicative textbooks usually covers various topics in different sections such as passages, conversations, listening exercises, and even grammar exercises. By taking a look at available textbooks, one can see that they enjoy a wide variety of topics such as social norms of behaving in different contexts and cultures, social and environmental issues, art, technology, fables, health, and animals to name a few. The content of English textbooks thus can be analyzed to see if they are compatible with sustainability themes and if not modified. In the present paper, we take the stance that English textbooks have the potential to spread the culture of sustainable life and by means of content evaluation of an English textbook series, we aim to contribute to improving educational resources that English learners use in their journey of learning a language. For this purpose, the content of a series of textbooks widely used in Iran will be analyzed to see if they contain the principles of sustainability stated in two documents: The UNESCO Roadmap for Implementing the Global Action Program on ESD and the Earth Charter. According to this roadmap, the main areas of sustainable development include climate change, biodiversity, disaster risk reduction, and sustainable consumption and production (UNESCO, 2014, p. 11). The Earth Charter was published in 2000 by the United Nations Educational Scientific and Cultural Organization (UNESCO) and is recognized as “a benchmark of an educational model for sustainable development” (Cutanda & Murga-Menoyo, 2014, p. 19).
Textbooks as Resources for Education for Sustainable Development

Literature Review

Two lines of research were related to the present study. One was the studies which focused on the analysis of textbooks in some way and the other was the projects which had sustainability as their main focus.

Textbooks have not attracted much attention from researchers in terms of content analysis. However, a review of the existing literature can reveal that some discourse oriented research has been conducted with textbooks as the corpus (e.g., Gu, 2015; Shinabe, 2018; McCabe, 2004). In addition, these studies have not specifically focused on ESL/EFL textbooks. The studies which have focused specifically on ESL/EFL textbooks have analyzed them in line with different orientations and frameworks. For example, Marefat and Marzban (2014) and Amini and Birjandi (2012) studied gender in EFL textbooks, while Farzane, Kohandani, and Nejadansari (2014) and Zarei and Khalessi (2011) examined the EFL textbooks through the lens of culture. Azizifar, Koosha, and Lotfi (2010) also examined the textbooks with respect to their structure and content organization. To the authors’ knowledge, no study has examined the content of ESL/EFL textbooks for the extent of their compatibility with sustainability themes.

The other line of research was articles which attempted to study sustainability in educational settings. In one such study, Kolbe (2015) compared the knowledge and attitudes of students studying in two different schools namely a grammar school and a comprehensive school about waste management. Waste management is considered as a major environmental concern, and raising the next generation’s awareness in this regard is of utmost importance. By means of a questionnaire, the data was obtained and analyzed both qualitatively and quantitatively. The results suggested that the students studying in the grammar school had a better understanding of waste management, were more aware of different methods of managing waste, and were also more likely to recycle waste themselves in the future. It was suggested to address the lack of knowledge among students of the comprehensive school. Both waste reduction and waste reuse were emphasized as being the most effective ways of dealing with waste. Therefore, raising the young generation’s awareness can affect their future life style and make them citizens who value the themes of a sustainable life.

In another study, Bell (2016) criticized the present educational systems for not being totally compatible with sustainability values and emphasized the role a transformative pedagogy can have on training the next generation on being responsible towards our planet. The author suggests that by incorporating sustainability themes in educational programs, hopefully a sustainable economy will emerge globally as it has already emerged locally in some parts of the world. As Bell (2016, p. 55) puts it, “We need to prepare students not only for employment in a sustainable economy, but also with the skills and values that will allow them to live sustainable lifestyles on this planet.”

In the field of English teaching, specifically in English for Specific Academic Purposes (ESAP), the need for a sustainable curriculum in teacher training programs was underscored in an article by Emadian, Gholami, and Sarkhosh (2018). Using a mixed-method design comprising quantitative and qualitative analyses, the authors conducted a needs analysis among two groups: a group of language instructors (n: 50) and a group of content specialists (n: 50) both teaching ESAP courses in various universities in Iran. In order to create a sustainable curriculum in line with needs of certain groups of learners (in this case English teachers and content specialist), it is crucial to consider what they need so as to consider it in the curriculum. Triangulation of the data was achieved by
using three different tools of data collection, that is through structured interviews, observations and a questionnaire. The findings indicate that there are differences in the needs of the two groups with regard to professional, personal, and procedural areas. English instructors would rather be trained in the mentioned areas more than content specialists. They also had more difficulty in selecting the material for teaching in class. English instructors also were shown to be less interested in teaching due to their lower payments compared to content specialists. The findings also revealed that the relationship between the students and the content specialist was closer probably because their field of study is the same. The authors concluded that it is possible to create a sustainable curriculum which is compatible with needs and attitudes of each group which consequently can lead to more efficient pre-service and in-service teacher training programs.

Other studies which has to do more specifically with the present study are those concerning suitable sources as educational material that are in line with sustainability themes and values. Although the literature on this topic is rather scarce, three studies were approximately relevant. Believing that new material must be developed, Cary (2007), suggested using quotations from Antoine de Saint-Exupery’s “The Little Prince” as proper vehicles to carry the message of sustainability to children. In fact, this has been done. Published as a brochure, the principles of the Earth Charter are stated “in the poetic and instructive style of a fairy tale” (Cary, 2007, p. 122). This reader-friendly brochure is widely used in Armenian schools. In the same vein, Ovsienko (2007), states that in the Republic of Tatarstan, in kindergarten and pre-school making children familiar with the values of sustainable life is possible with outdoor activities so that children can understand the importance of protecting the environment. Ovsienko (2007, p. 55) also explains the existing ways of using traditional sayings in Tatarstan and Russia as “an unobtrusive way of introducing important, and sometimes abstract, concepts in a flexible and interactive manner”.

In a unique study, Cutanda and Murga-Menoyo (2014) attempted to examine the value of folklore and traditional stories of different peoples as sources for educational material for sustainable development. They examined 28 mythical and metaphorical texts that came from 19 cultures and 4 continents: Africa, Asia, America, and Oceania. As a framework, they constructed 23 categories of which 12 pertain to epistemological principles which were extracted after a thorough review of the literature on the model of education for sustainable development and complex-systems thinking and 11 outline the values and attitudes of sustainability for constructing which the Earth Charter was the main guideline. The results of a content analysis of the corpus revealed that the stories are totally in accordance with the principles of the Earth Charter. The authors believe that the potential of mythical and metaphorical stories of different peoples as educational material “is worth exploiting for improving the quality of education” (Cutanda & Murga-Menoyo, 2014, p. 32). To the best of the author’s knowledge, no other study has attempted to examine texts, whether educational or not, as to understand their coherence with the values of sustainability. The present study is an attempt to evaluate a series of EFL English textbooks to find out if such values and principles have been paid any attention to.

The objective of this study was to examine EFL textbooks to better understand whether their content is reflective of the values of sustainable development and to raise awareness of the importance of including such content in English language teaching textbooks used widely in Iranian EFL context.
Method

Corpora: English Language Teaching Textbooks

The English series chosen to be examined in this study is Iran Language Institute (ILI) series for adults. This series was chosen because Iran Language Institutes is a language school with branches all over Iran. The languages taught are English, French, German, Arabic, Russian and Spanish. It is a well-known language school in Iran which is a trusted place for a lot of families to send their children and for all learners to receive a quality education. There are classes for children, teenagers, and adults. Therefore, the textbooks taught in the ILI can be influential in shaping a lot of English learners’ mentalities. The series selected for the purpose of this study is for adults and include 18 books accompanied by workbooks (3 books for the basic level, 3 for the elementary level, 3 for pre-intermediate level, 3 for intermediate level, 3 for high intermediate level and 3 for advanced level). Each book is studied during a season-long semester and the whole program takes 18 semesters (4.5 years) in case repeating a semester is not needed. The main books are analyzed in terms of their content’s compatibility with the principles of sustainability.

Content Analysis Framework

The framework for the content analysis in this study was constructed by considering two sources: The Earth Charter and The Roadmap for Implementing the Global Action Program on ESD. As was mentioned in the introduction, one of the documents the framework of analysis is based upon is the UNESCO Roadmap for Implementing the Global Action Program on ESD (2014, p. 11) based on which the highlighted areas of sustainable development include climate change, biodiversity, disaster risk reduction, and sustainable consumption and production.

The other document used as the foundation for building a framework of analysis is the Earth Charter (2000). The Earth Charter (2000, pp. 2–3) puts forward the following four principles: “The first one is respect and care for the community of life, the second is ecological integrity, the third social and economic justice and the last democracy, nonviolence, and peace”.

Each principle is elaborated and is made clear though explanations. The concepts stated in the UNESCO Roadmap for Implementing the Global Action Program on ESD (2014) and the Earth Charter (2000) mostly overlap, therefore, the following fourteen selected areas were defined to summarize the major points of the two documents (Table 1).

<table>
<thead>
<tr>
<th>Themes</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>Life diversity</td>
<td>Respecting all life forms and the interdependence of all life forms, the harmony between animal life and human life, the harmony between human and nature</td>
</tr>
<tr>
<td>Saving natural resources and their mindful consumption</td>
<td>Saving natural resources (e.g. petroleum, gas, minerals, forests, rivers, etc.)</td>
</tr>
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</table>

Sequel to Table 1 see on the next page.
Sequel to Table 1.

<table>
<thead>
<tr>
<th>Sustainable Development Area</th>
<th>Description</th>
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<tbody>
<tr>
<td>Endangered species</td>
<td>Raising awareness about and care for endangered species, hunting animals or fish in an uncontrolled way; preventing cruelty toward animals</td>
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<tr>
<td>Renewable energy resources</td>
<td>Using clean energy sources like the sun’s or the wind’s</td>
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<tr>
<td>Pollution</td>
<td>Raising awareness about pollution and the ways humans are polluting the environment; ways of controlling pollution</td>
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<tr>
<td>Recycling</td>
<td>Recycling waste and using recycled products</td>
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<tr>
<td>Technology</td>
<td>Mindful use of technology in ways that are not destructive to the Earth, and the living things</td>
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<tr>
<td>Poverty</td>
<td>Raising awareness about poverty and how this phenomenon affects peoples and the environment</td>
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<tr>
<td>Discrimination</td>
<td>Fighting discrimination in all its forms</td>
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<tr>
<td>Climate change</td>
<td>Raising awareness about greenhouse effects and the changes in climate due to human activities</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>Knowing about natural disasters and their causes, consequences and the role of humans in all that</td>
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<tr>
<td>Collaborative problem solving and peaceful life</td>
<td>Knowing about collaborative problem solving, cooperation, working with others and living peacefully with other people, showing compassion and tolerating opposing ideas and finding peaceful solutions for conflicts</td>
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<tr>
<td>Cultures and spiritual practices</td>
<td>Knowing about and respecting other peoples’ ways of life, cultural heritage, and spirituality</td>
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<tr>
<td>Family</td>
<td>Knowing about the value of family and paying attention to the well-being of all its members</td>
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</tbody>
</table>

Table 1 was used as the basis of content analysis of the ILLI English series to find out if these themes occurred in the content and if so with what frequency. In each unit of the books, every part including conversations, passages, speaking and listening sections were examined. The unit of analysis for the passages was, following Cutanda and Murga-Menoyo’s (2014) model, the paragraph. In cases when this was not possible like conversations, or speaking or listening activities where only the topic is specified, the whole activity in question was examined sentence by sentence. The recurring themes in a section were counted only once because especially when a text is long, there is a unifying general idea so it is quite natural for the themes to occur more than once. Having done the content analysis by the author, an experienced colleague who has taught all the books reviewed the results and a 100% agreement on the results was achieved.

**Results and Discussion**

In the eighteen books that were evaluated, the sustainability themes were present. However, their distribution was not even. The themes were totally absent in some books and abundant in some others. The results of the content analysis are presented in Table 2.
Table 2  
**The Sustainability Themes Present in the ILI English Series**

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<th>Books in the ILI English Series</th>
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<td>4</td>
<td>14</td>
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| (%)                            | 9.5 | 9.5 | 9.5 | 1.3 | 8.2 | 5.4 | 6.8 | 4.1 | 2.7 | 4.1 | 10.9 | 5.4 | 19.1 | 2.7 | 100 |

(* ) Each occurrence of the theme in the specified book in that row. 
Note: Life diversity (LD); Saving natural resources and their mindful consumption (Sv NR); Endangered species (End Sp); Renewable energy resources (Re ER); Pollution (Pol); Recycling (Rec); Technology (Tech); Poverty (Pov); Discrimination (Disc); Climate change (Cl C); Natural disasters (ND); Collaborative problem solving (CPS); Cultures and spiritual practices (Cul); Family (F); B1 (Basic 1); B2 (Basic 2); B3 (Basic 3); El1 (Elementary 1); El2 (Elementary 2); El3 (Elementary 3); Pre1 (Pre-Intermediate 1); Pre2 (Pre-Intermediate 2); Pre3 (Pre-Intermediate 3); Inter1 (Intermediate 1); Inter2 (Intermediate 2); Inter3 (Intermediate 3); High1 (High-Intermediate 1); High2 (High-Intermediate 2); High3 (High-Intermediate 3); Ad1 (Advanced 1); Ad2 (Advanced 2); Ad3 (Advanced 3).
As it is evident from Table 2, there is a total absence of sustainability themes in B1, B2, B3, Inter1 and High1 books while some books like Ad2 enjoy having a large number of those themes. In all the 18 books, the themes and topics related to sustainability occurred 73 times. This becomes even more evident when we consider the number of chapters in each level. There are 10 units in Books for Basic, Elementary and High-Intermediate levels while there are 8 units in books for Pre-Intermediate and Intermediate levels. There are only 6 units in books for Advanced level. Each semester at the ILI lasts for 20 sessions regardless of the number of units in each book, therefore; when more sustainability themes occur in an Advanced book, it means that the learners have a greater chance of discussion, reading, listening or writing about them.

Among the themes, Cultures and Spiritual Practices have the greatest frequency of occurrence with 19.1%. Renewable Energy Resources with 1.3 percent has occurred the least. Among the books, Advanced 2 enjoys the greatest frequency of sustainability themes with 17.8 percent of all the cases.

The distribution of the asterisks in the table reveals another pattern: The books for Elementary and Pre-Intermediate levels and the ones for High-Intermediate (2, 3) and Advanced levels have the greatest number of the themes in their content. Books for Basic levels, Intermediate levels and High-intermediate 1 have no or very few cases of sustainability themes in them. From a linguistic perspective, it might not be suitable to put sustainability themes in books for Basic levels as the vocabulary and the grammar needed to discuss such topics are way beyond what is presented in those books. However, it can be claimed that there is no need to have sustainability themes in length or elaborately in Basic levels. The mere introduction of such themes might even be enough for raising the awareness of the English learners. As Cutanda and Murga-Menoyo (2014) showed, stories can be great material for teaching sustainability. Simplified versions of stories from different peoples can not only convey the intended message but is an interesting way of making the learners familiar with other cultures so that they appreciate other ways of thinking. This in itself is one of the values of sustainability. Among the books that were examined, only two stories were found that promoted avoiding selfishness and greed and could indirectly teach the values pertaining to mindful consumption, sharing and saving resources. One of the stories was found in an elementary and the other in a high-intermediate book. Thus, it can be concluded that stories have the potential to be linguistically simple or complicated enough for all proficiency levels. In case of the two books for the Intermediate level (1 and 2) and one High-Intermediate (1), the lack of sustainability themes seems strange especially because they are present in the previous books (Pre-intermediate and Elementary). Table 2 also reveals that themes related to sustainability are more concentrated in the books for higher levels (e.g., High 3 or Advanced 2). Apparently, this is because learners’ proficiency is good enough to discuss such issues without much difficulty. That might explain the high concentration of the themes in higher levels.

Another point worth discussing is the fact that in some books one or two themes are dominant (e.g., High 2, Advanced 2 and Advanced 3). This is due to the fact that a whole unit in the book is built around a certain theme. If you take High 2 as an example, a whole unit is devoted to natural disasters. The unit begins with a rather lengthy passage about hurricanes followed by exercises one of which includes another passage about hurricanes. Then, there is another passage about earthquakes with some exercises which
is followed by a listening activity about extreme weather and a speaking activity the topic of which centers around natural disasters. All this is concentrated in a single unit out of the ten units which the book has. Throughout the book, there is only one other theme which is indirectly related to saving and sharing resources.

Considering the themes of sustainability, Culture, is the most frequent in the content of the books. The reason behind this might pertain to the nature of language learning. As was mentioned earlier in this paper, knowing about the culture of the people who speak a language is part of learning a language. However, in this English series, it was observed that instead of introducing the culture of English speaking countries, the culture of different people’s, their traditions, and their spiritual ways have been emphasized. This is in line with the idea that EFL/ESL textbooks can be great vehicles for carrying such messages as respecting other people’s ways of life, cultural heritage, and spirituality among other things. The following is an excerpt from Advanced 3 with the general theme of Culture:

Muslims believe God is nothing like anything we know or understand. God doesn’t have a body or anything that can be seen or measured. God is not male or female (though God is called He in Islam). God was not born and will not die. God is outside time and space. God is simply beyond anything that humans can understand. Muslims believe that God is: the creator of the universe, the only god, eternal, all-powerful, all-knowing, all-seeing, all-hearing, and all-willing.

In another group work speaking activity in the same unit people discuss their views:

Look at the following statements. Do you agree or disagree? Share your answers with the class and discuss your reasons.

a. Most people today don’t have a coherent system of beliefs.
b. There is no contrast between believing in science and in religion at the same time.
c. There are all kinds of strange phenomenon in the universe which science can’t explain.
d. There must be life on other planets.
e. We all need some kind of faith to help us get through.
f. Religion gives a special meaning to people’s lives.
g. Religious beliefs give people a more positive outlook on their lives.
h. Believing in an afterlife can help people not to feel alone in the world.
i. Religious involvement is the most important source of satisfaction for all people.
j. There is a close link between altruistic behavior and faith.

This sort of activities can enhance the learners’ knowledge about other viewpoints on religion and spirituality and might also lead to a more open and accepting attitude.

Almost all the other themes examined in this series are more or less present in the books. The two themes of Renewable Energy Sources and Discrimination, however, have occurred only once and twice respectively and only in Advanced books. These themes, along with the other two themes of Climate Change and Poverty with only three occurrences, could have received more attention as they are as important as the other topics of sustainability.
It is worth noting that the textbook alone, however well-written, cannot achieve the educational goals its writers had in mind for it, whether language learning goals or ESD goals, without the active role of the teacher and the learners. Having a guiding role, teachers can pave the way for the better integration of the values and principles of a sustainable life with language learning. This can be very important when the book itself lacks the material partially or completely. As a teacher who has been teaching the ILI English series for adults for ten years, the author believes that in most cases the learners are willing and eager to discuss such matters with a minimum prompting from the teacher. For example, in Basic level, the books don’t have content related to sustainability, however, there are activities about topics that can indirectly be related to sustainability (e.g. a conversation about going to the zoo, a warm-up activity about going camping, a listening activity about a flying doctor who works in Africa, a reading activity about a vacation in the forest, etc.). Although such activities might not be related to sustainability at first read, they can create a context to talk about some values in a simple, easy to understand way. The following reading passage is taken from Basic 3 book:

Dear Sam,
It’s the last day of my vacation. On Monday, I was in the forest with my parents. On Tuesday, Mom and I were on the ski slopes. The skiing was really good. On Wednesday, we were in the hotel most of the time because it was so cold and snowy. I was hungry because the hotel food was not very good. On Thursday, dad and I were in the forest again. And today’s Saturday. Time to say goodbye.

The above example (which is accompanied by a picture of a family in a forest) can create a good context for talking about forests, not littering it and saving trees. The teacher can have a facilitating role by asking questions from the class. For example, the teacher can ask where the forests in Iran are if it is OK to cut so many trees, and if it is OK to start a fire in the forest, etc. Thus, in Basic and Elementary levels, the teacher’s role as an enhancer and facilitator for discussing the values of sustainability in class can be very important.

Teaching English and teaching the principles of a sustainable life can go hand in hand. The value of it lies in the great opportunity English learning classes provide for talking about such themes, raising learners’ awareness about such issues and helping them come up with creative ways to contribute in solving the big environmental problems we face today. In essence, it is both the teachers and the learners who give meaning to any activity done in an English classroom. Textbooks will nevertheless have an orienting role. Without it, some of the principles of sustainability may never be brought into focus in a classroom.

Conclusion

The results of the present study contribute to our understanding of the presence of the values and principles of sustainability in an existing and already in-use EFL textbook series in Iran. As English textbooks have a great potential for integrating language learning and ESD, the findings of this study can help policymakers, educators, material developers, and English teachers to have a clearer picture of the existing content and to take steps toward improving it in line with the principles of sustainable lifestyle. Although
the results endorse the presence of sustainability themes in ILI textbooks, they show that these themes are not distributed in all books evenly. In some cases, even in a single textbook, all the sustainability-related themes are concentrated in a single unit of the book.

The inclusion of legends and mythical stories (Cutanda & Murga-Menoyo, 2014) in EFL/ESL textbooks, especially in Basic or Elementary levels, perhaps in a simplified way can also be a great improvement because such stories have been shown to have the values of sustainability inherent in them. Therefore, such tales will not only introduce cultural diversity and respect for other people’s ways of thinking but will be a good source for introducing other sustainability-related themes as well. The role teachers play in organizing the lesson plan to integrate sustainability values whenever there is a chance must also be highlighted. Teacher training programs can prepare teachers and raise their awareness about these environmental issues and ESD so that they will have the necessary skills and knowledge to help learners internalize the principles of sustainability along with learning English. The framework used for the content analysis was created based on the principles of the Earth Charter and the UNESCO Roadmap for Implementing the Global Action Program on ESD. Although attempts were made to make the framework as inclusive as possible, future research in this area can improve and refine the framework. The present study was conducted to analyze the content of one English series that is taught inside Iran. This may limit the way the findings of this study can be generalized and used. Therefore, researchers interested in this field can consider analyzing internationally distributed English textbooks such as TouchStone, Top Notch, American English File, etc.

References


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EFL Teachers’ Cultural Identity Development through Participating in Cultural Negotiation: Probing EFL Students’ Perspectives

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Abstract
This study was an attempt to probe the perceptions of the EFL students about the cultural identity development of the EFL teachers who participated in cultural negotiation programs. To that end, the interactionally oriented narratives of four EFL students were collected. The narratives were about the cultural performance of the EFL teachers who participated in the cultural negotiation programs in the EFL classes. The narratives were codified based on the principles of Strauss and Corbin (1998) systematic approach. The findings indicated that the EFL students had positive opinions about how their teachers dealt with cultural issues in the classrooms after participating in cultural negotiation programs. The findings also indicated that the EFL students perceived that the EFL teachers engaged more in cultural discussions, they used more interaction types, they were more motivated to address cultural issues in the classes, and they took into account the emotions of their students in cultural discussions in the classrooms. Moreover, it can be concluded from the findings that cultural negotiation programs have positive effects on the EFL teachers’ cultural identity development if the principles of identity-as-practice and identity-in-discourse will be followed in the EFL teacher education programs.

Keywords: cultural identity, narrative, systemic approach, identity-as-practice.

Introduction
Language teacher identity finds a well-established arena of research in the last two decades. Hence, it is now very common to see different terminologies related to language teacher identity in journal reports, handbooks, and encyclopedias published in the field of language learning and teaching (Norton & Toohey, 2011). Moreover, it can be observed that researchers in the field of teacher education in general, and language teacher education in particular, are interested to investigate the relationship among teachers’ identity and other attributes such as emotion, motivation, profession, etc. (e.g.
Day, 2018; Miller, 2009; Richardson & Watt, 2006). The reason for such a keen interest in doing research to examine different aspects of language teacher identity can be the fact that by understanding language teacher identity and the way to develop it, language teacher educators can understand the way to develop the teaching profession of language teachers (Kumaravadivelu, 2012).

The concept of identity does not develop in vacuum, yet it is a socially constructed attribute which has different angles that lead to various viewpoints when one tries to define it. Preece (2016) defines identity as a socially constructed phenomenon resulted from “the mobility and diversity that has arisen in the social worlds of the physical and digital world due to the processes of globalisation in late modernity” (p. 3). Moreover, Norton (2013) describes identity as the way an individual tries to perceive him/herself in accordance to others. The two definitions are implicitly mentioning the concept of negotiating self. Heller (1987) declares that negotiating self is all the potentialities which an individual has in order to disseminate his/her beliefs, assumptions, and values in a society and accept others’ beliefs, assumptions, and values. The context of English language teaching and learning is called to be a cosmopolitan one (Stanton, 2006); meaning that it is a community with different members which the cultural identity development and understanding of each of them is crucial to the final act of teaching and learning. In this regard, the cultural aspects of identity will be considered as very important.

Cultural identity is defined as “an umbrella construct to encompass, or subsume, related identity groups such as nationality, race, ethnicity, age, gender, socioeconomic status, regional identity, ethnolinguistic identity, political affiliation, and (dis)ability” (Chen & Lin, 2016, p. 2). Cultural identity may be negotiable (Yagi & Kleinberg, 2011) or not depending on various factors. That said, the cultural identity of language teachers can be addressed if they participate in cultural negotiation programs in which they negotiate on different cultural concepts which are associated to cultural identity. Negotiation in this sense can be described as a mean of “getting thing accomplished” (Strauss, 1978, p. 11). In the context of EFL teaching, accomplishing the act of teaching and learning by teachers and students, respectively, is the point in which negotiation of cultural identity can be of advantages (Rashidi & Meihami, 2019). It is without saying that the cultural identity development of EFL teachers can be perceived by the EFL students in different ways. Moreover, the cultural identity development of EFL teachers may have effect on teaching profession and, finally, on EFL students learning. That said, in the current study, the researcher investigated EFL students’ perceptions on the cultural identity development of EFL teachers who participated in the cultural negotiation programs. As a whole, the aim of this study was to track down the perceptions of EFL students about cultural identity development of EFL teachers to examine the cultural identity development of the EFL teachers through the lens of the EFL teachers.

Cultural Identity Theories

The fundamental underpinnings of cultural identity can be summarized in several theories. Addressing these theories chronologically, the first theory is cultural identity negotiation theory introduced by Collier and Thomas (1998). This theory is conceived to be an interpretive inquiry to cultural identity. According to this theory of cultural identity, negotiation of cultural identity helps the individuals to specify their current positions compared to others in order to share their cultural identity. Collier and Thomas
EFL Teachers’ Cultural Identity Development through Participating...

(1988) state that there are five processes which should be addressed when this theory is focused, including scope, salience, intensity, avowal, and ascription. Meihami (2019, p. 18) states that by going through different processes of cultural identity negotiation theory “interactions in different contexts, during different time intervals, and with different audiences bring different cultural identifications which are influential in negotiation of cultural identity.”

In 2002, Jackson proposed cultural contract theory in which it states “intercultural relationship may or may not be coordinated, depending upon the dynamics involved, such as power, boundaries, cultural loyalty, group identification, and maturity” (Jackson, 2002, p. 361). In this theory of cultural identity, an individual can negotiate his/her cultural identity based on involving in three contracts including ready-to-sign contract, quasi-completed contract, and co-created contract. Going through the three contracts is similar to a continuum in its early stage the individual does not prefer to shift his/her cultural identity, in the middle stage he/she likes to reconstruct his/her cultural identity provided that his/her beliefs, values and assumptions will be respected, and in the ending stage the individuals share their cultural identity with others’ cultural identity and construct new type of cultural identity and accept it.

Identity management theory (Imahori & Cupach, 2005), as a theory of cultural identity, assumes identity as the building block of intercultural communication. The main assumption of identity management theory is that individuals from different cultures can negotiate their cultural identities if three phases of identity management theory including trial, enmeshment, renegotiation, will be accomplished. In the first phase, trial, the individuals find it important to communicate with others based on sharing their cultural identity. In the second phased, enmeshment, individuals’ first symbolic convergence will be held. If the first two phases will go right, then, the third phase which is renegotiation will be followed. In the renegotiation phase, and individual negotiates his/her cultural identity with others.

Another cultural identity theory which is proposed by Stella Ting-Toomey (2005) is identity negotiation theory. The main concern of this theory is that sense of satisfaction for an individual will specify whether or not, to negotiate his/her cultural identity with others. In this regard, it should be stated that the first perceptions of an individual with a community which he/she wants to share his/her cultural identity is very important. Five main concepts are regarded as the themes of identity negotiation theory including identity security and identity vulnerability, identity inclusion and identity differentiation, identity predictability and identity unpredictability, identity connection and identity autonomy, and identity consistency and identity change. It is worth mentioning that these theme are context-laden; meaning that in each specific context, one or more than one of them are activated. Moreover, in this theory, the importance of ethnic identity and its relationship with an individual’s cultural identity is well taken into account.

EFL Teacher Cultural Identity

Research on EFL teacher cultural identity is in its infancy. Teaching and learning in the EFL context are not without conflicts for teachers and students. because they have their own cultural values, assumptions, beliefs, and, ultimately, cultural identity; causing “tensions and struggles … common themes in the construction of language teachers’ bi- or multi-cultural identities” (Martel & Wang, 2015, p. 239). However, it should be noted
that if the conflicts and tensions will be negotiated appropriately, a secondary cultural identity can be achieved by the EFL teachers and learners which is related to the EFL context they have already participated (Fichtner & Chapman, 2011).

It is true that many of the discussions and debates made in the EFL contexts are based on members’, either teachers or students, cultural identities; meaning that their social and cultural values may be the main topic of discussions and debates in the classroom. Accordingly, “problems may arise when teachers’ or students’ identities and beliefs related to gender roles, nationality, ethnicity... or local culture” are discussed and debated in the classroom (Duff & Uchida, 1997, p. 452). Furthermore, since English, as an international language, is not a culturally neutral language, English teaching and learning may have impact on cultural identity construction of teachers and learners. In its own place, it will lead to the importance of administrating cultural negotiation programs in the EFL teacher education programs to help EFL teachers be more competent in managing their cultural performance in their classrooms.

There is a paucity of empirical study about EFL teachers’ cultural identity development. Moreover, to date, there is no study examining the perceptions of EFL students about the cultural identity development of their teachers who participate in cultural negotiation programs. Fichtner and Chapman (2011) conducted a study to see how foreign language teachers affiliate themselves with more than one culture. They found that, foreign language teachers embrace their own culture but they do not embody “the other” culture. Moreover, Rashidi and Meihami (2017) went through the student-teachers’ narratives to investigate the role of negotiation about cultural issues on their cultural identity development. The findings of their study indicated that the student-teachers’ cultural identity developed after their participation in cultural negotiations; in that, they changed their views about the cultural differences and the way they could make use of them in their teaching.

**Method**

This study was aimed to investigate the EFL students’ perceptions about the cultural identity development of EFL teachers participating in cultural negotiation programs. To that end, the narratives authored by the EFL students whose teachers were in a cultural negotiation programs during the conduction of this research were collected. It is worth mentioning that these EFL teachers were participating in a cultural negotiation program aimed to develop their cultural literacy about cultural variations and how to deal with cultural variations in their classrooms. The setting of doing this study was an Iranian EFL context in which the EFL students were learning English as a foreign language.

**Participants**

Four EFL students participated in the current study to help the researcher address the cultural identity development of the EFL teachers in the classrooms. These students were the English students of the EFL teachers who were participating in the cultural negotiation program. Three of these students were male and one was female. Their proficiency level, as stated by their institute officials, was upper intermediate. The students were selected based on convenience and their interest to participate in the study. Their pseudonyms were Mahmoud, Sina, Leyla, and Karim. It should be stated that the inter-
actions with all of the students were not face-to-face, but through different social medias. However, with some of them the researcher had sessions to consult different issues. The students were asked to write down their interactional narratives.

**EFL Students’ Narratives**

There are two main types of approaches to collect and analyze the narratives, namely, biographical and interactionally oriented approaches (De Fina, 2015). The difference lies on how the life stories and interactions are approached as the source of data. The biographical oriented approach to narrative analysis assumes that “identity building has as its objective the production of a coherent self, and that the ability to create that coherence afforded by narrative has itself a positive effect on selfidentity” (Freeman, 2015; as cited De Fina, 2015, p. 352); asking for life story writing by individuals at one point of time. However, the interactionally oriented approach to narrative analysis points out the importance of interactions among different stakeholders of the narratives. In the interactionally oriented approach to narrative analysis social interactions are regarded as important.

Due to the nature of the study, the researcher asked the students to write interactional narratives. It is so because the researchers need to see the perspectives of the student during different time intervals. One more reason to ask students to write interactional narratives was that the researcher wanted to track down the cultural identity development of the EFL teachers participating in the cultural negotiation programs during different time intervals and through the narratives written by the EFL students who participated in the classes of those teachers. Given that, the EFL students were asked to write down their narratives during three time intervals, at start of EFL teachers cultural negotiation program, at the middle of it, and at the end of it. During these three time intervals, the EFL students had different classroom interactions which led them to write their narratives interactively. Moreover, by going through the narrative written during these intervals, the researcher could draw the students’ perspectives about EFL teachers’ cultural identity development. It should be noted that to eliminate the effect of language proficiency on writing narratives (Bilgen & Richards, 2015), the EFL students were asked to follow their preferences in selecting either English or Persian language. However, it should be noted that those narratives which were written in Persian were translated by the researcher into English and, then, another English translator tried to translate them to Persian to examine the agreement. By so doing, the issue of narrative analysis of Persian written narratives would be solved.

**Data Analysis Procedure**

To analyze the narratives written by the EFL students, the researcher used systematic approach proposed by Strauss and Corbin (1998) which is related to grounded theory (Ary et al., 2014). There are three coding levels in systematic approach: open coding, axial coding, and selective coding. The researcher started to analyze the narratives by open coding. In this level of coding the major or core categories were specified. The next level was axial coding in which the categories were broken into subcategories and sub-themes. Finally, in the selective coding, the researcher developed propositions and
hypotheses. To conduct correct narrative analysis MAXQDA 10 was used. Table 1 shows an example of the analysis of part of the narrative authored by an EFL students:

Table 1

<table>
<thead>
<tr>
<th>Example 1</th>
<th>Open Coding</th>
<th>Axil Coding</th>
<th>Selective Coding</th>
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<td>... our teacher talked about the cultural issues in the textbooks and the related outside concepts from the first sessions but it was in the middle of the semester that some of the students, one of them was me, participated in the discussions...</td>
<td>• Addressing cultural issues in the classroom</td>
<td>• Cultural engagement of the EFL teachers</td>
<td>• Student-teacher cultural negotiation</td>
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</table>

As can be seen in Table 1, through examining the EFL students’ narratives, one can understand that the cultural identity of the EFL teachers developed since they tried to negotiate more on cultural issues in their classrooms.

To address the rigor of the study for the matter of correct narrative analysis, the researcher used member checking to be assure about the credibility of the narrative analysis, in which the researcher consulted parts of the narratives that were vague with the participants. Moreover, the transferability of the narratives was addressed through cross-case participants in that the students were from different institutes and the students of different EFL teachers participating in the cultural negotiation programs. Furthermore, the dependability of data analysis was done by asking another coder to go through the 50% of the narratives to analyze them. The findings indicated that the agreement between the two coders was satisfactory.

Findings and Discussion

The EFL students’ narratives were analyzed to see what their perspectives were about the cultural identity development of their teachers. Their narratives showed several main themes which are discussed in the following section.

Cultural Engagement

The analysis of the students’ narratives indicated that they believed in the development of EFL teachers’ cultural engagement in the classrooms while these teachers participated in cultural negotiation programs. Leyla’s and Karim’s narratives indicated that these teachers tried to start addressing cultural issues from the first sessions but they were not that successful since their students did not accept discussions. However, based on the analysis of the narratives by the EFL students, they could do so and address cultural issues sooner than the middle of the semester. Excerpts 1 and 2 are parts of excerpts authored by Leyla and Karim, respectively.

Excerpt # 1

... our teacher talked about the cultural issues in the textbooks and the related outside concepts from the first sessions but it was in the middle of the semester that some of the students, one of them was me, participated in the discussions...
Excerpt # 2

In the fourth or fifth session, I had a discussion on [speech act] of refusal in cultures … the teacher had his own idea and was firmly stating it … these discussions continued till the final sessions … the teacher was less firm and more accepting others opinions …

The two excerpts (1 and 2) show that the EFL teachers tried to use cultural issues in a way to continue the process of English language teaching. Although they were rigid on their ideas at the start of the semester, at the end and when they participated in negotiation sessions they were less rigid. It means that these teachers did not position themselves as rejecters of others cultural ideas, but they tolerated their ideas and discussed them. The development in cultural engagement of the EFL teachers in their classrooms with their EFL learners show the development of their cultural identity (Rashidi & Meihami, 2017). Based on the findings, it can be stated that EFL teachers’ participation in the cultural negotiation programs led to the emphasis of identity-as-practice in their classes (Kanno & Stuart, 2011; Wenger, 1998). Thus, the EFL teachers’ cultural engagement in their classes developed; which led them to become aware about cultural variations in the classes and to engage in cultural discussions with more openness. Consequently, it can be stated that through participating in the cultural identity negotiation programs, the EFL teachers will be aware about the cultural variations and how to deal with them; and in their classes, they will engage in cultural discussions in that they learn to become teachers who are prudent about their learners’ cultural affairs.

Interaction Types

EFL students’ narrative analysis showed that they believed that the EFL teachers who participated in the cultural negotiation programs used different types of interactions to address the cultural discussions in their classrooms. The results of narrative analysis indicated that EFL teachers used teacher-student interaction type in the first sessions, then, they changed it to student-student interaction, and, finally, to teacher-student-student interactions. Excerpts 3 and 4 authored by Sina and Mahmoud, respectively.

Excerpt # 3

... as I stated, we had cultural issue discussions from the first sessions but at first they were between teacher and the students. Later on, the discussions were among the students ....

Excerpt # 4

Once, [at the final sessions of the semester] when the content of the textbook was about the way we call each other, I remember there was a discussion in which the teacher helped all the students to talk to each other and discuss the issue ...

Excerpts 3 and 4 show that the EFL teachers used all interaction types to address cultural issues happened in their classes for the purpose of helping EFL students to use English to discuss these issues. The point is none of the students mentioned in their narratives that the EFL teachers used Persian for discussing the issues; showing that the
EFL teachers were competent in addressing cultural issues through English language. The teachers used the context of their classrooms as a discourse arena to practice cultural negotiation. Identity-in-discourse (Kanno & Stuart, 2011) which is the construction of identity discursively can be tracked down in the narratives authored by EFL students. Consequently, through establishing different discourses, the teachers intended to discuss different cultural concepts. The EFL students’ narratives showed that from the early stages to the ending of the program, the EFL teachers’ use of identity-in-discourse developed; meaning that the cultural negotiation programs which the EFL teachers have already participated had positive effects on their cultural identity development.

Teacher Motivation

The analysis of EFL students’ narratives indicated that the motivation of EFL teachers who participated in the cultural negotiation programs increased regarding the cultural performances and discussions in the classrooms. Excerpts 5 and 6 are parts of narratives authored by Sina and Leyla, respectively.

Excerpt # 5

... the thing was that in the first sessions of our classes, our teacher did not that much interested to talk about different cultural issues ... several times in the final sessions I heard from our teacher that he stated “OK, everybody, Let’s talk about the cultural points of this issue” ... 

Excerpt # 6

... from the middle of the program onward, I see new MOTIVATION in our teacher to discuss cultural issues regarding our classroom discussions ...

As can be seen from parts of the narratives authored by Sina and Leyla, the EFL students believed that the motivation of their EFL teachers flourished to consider cultural discussions in the classrooms. Teacher motivation in general, and EFL teacher motivation in particular, is a multidimensional, complex, and responsive concept (Butler, 2014; Richardson & Watt, 2006). That said, it is not an easy task for teacher educators to address and develop this issue in teacher education programs. Richardson and Watt (2018, p. 42) state that

> Personal and social identities are responsive to different contextual factors and influence what teachers are motivated to do, the action they will take to achieve their goals, how well they will “fit” within the work culture of the school, their work satisfaction and whether the resources available to them support or undermine their commitment, persistence and identity as a teacher.

Accordingly, it can be argued that the motivation of the EFL teachers who participated in the cultural negotiation programs changed; leading to their cultural identity development and change in their cultural performances. Attending in a context in which negotiation about various cultural concepts happened led the EFL teachers to be motivated to achieved their teaching goals. Hence, the development in the motivation of these teachers led them to practice more on addressing cultural issues in their classes.
Finally, the EFL students mentioned development in their teacher emotion in their narratives. Parts of the narratives authored by Mahmoud and Karin are shown in excerpts 7 and 8.

Excerpt # 7

… our teacher tried to take into account our feeling when there was a discussion about cultural issues [at the middle of program onward] … when he thought that one of the students might get annoyed from the way he discussed the cultural concept, he tried to appease [settle down] the emotional issues …

Excerpt # 8

I think the more our English program reaches its termination, the more our teacher tried to consider the students’ discussions about cultural issues … our teacher tried to harm nobody in the discussions …

There is a direct relationship between teacher emotion and teacher identity since by understanding the emotional messages of the class, the teachers make decision how to arrange their teaching (Day, 2018). Moreover, Wróbel (2013) believes that teachers are “emotional labors” since, it seems obvious that emotions play an important role in the workplace. This can be true especially in the case of teachers whose role is not only to teach, but also to establish and maintain a learning-friendly environment. In practice, it may mean showing enthusiasm while conducting classes, reacting with empathy to pupils’ worries and needs, hiding fatigue and annoyance or displaying positive emotions even when pupils are being difficult and rude. Teachers have to educate and, at the same time, manage their own emotions to meet the expectations associated with their profession ... In other words, they perform emotional labor (p. 581).

It can be stated that through participating in cultural negotiation programs, the EFL teachers’ cultural-professional identity developed. It is so because by using the notions they learnt in the negotiation programs, and by perceiving the cultural status of their classes, they tried to address cultural issues in their classes. In so doing, they tried to take into account the emotions of their students and select their teaching methodology by considering the emotions of their students. Owing to this, the classes were changed to a learning-friendly ones in which cultural issues could be discussed and debated. Moreover, by understanding the emotional messages of the classroom, the EFL teachers conduct “deep acting” (Grandey & Gabriel, 2015) in which they do their best to consider the emotions of their students in their teaching methods.

Conclusions and Implications

This study was an attempt to probe perception of the EFL students about the cultural identity development of the EFL teachers who participated in cultural negotiation programs. The findings of this study indicated that the EFL students had positive opinions about
how their teachers dealt with cultural issues after participating in cultural negotiation programs. The findings also indicated that the EFL students perceived that the EFL teachers engaged more in cultural discussions, they used more interaction types, they were more motivated to address cultural issues in the classes, and they took into account the emotions of their students in cultural discussions in the classrooms. Thus, the findings of this study is in line with Rashidi and Meihami (2017), Yazan (2018), and Yazan and Peercy (2018) in that the importance of negotiation in identity development of language teachers is acknowledged.

It can be concluded from the findings of the current study that one new aspect of EFL teachers’ professional identity to be called cultural-professional identity was addressed through their participation in the cultural negotiation programs. The points which were been stated in the narratives of the EFL students including EFL teachers’ cultural engagement, their use of different interaction types, their motivation development and their consideration of EFL students’ emotion showed that the EFL teachers’ professional identity developed that since this identity was about cultural performances in the classrooms, it can be regarded as cultural-professional identity. The development in cultural identity of the EFL teachers can be obtained through professional negotiation on cultural issues which in its own respect will lead to cultural-professional identity.

Through the findings obtained in this study, one can assume that the cultural negotiation programs which the EFL teachers participated had impact on their instructional identity, too. As an indispensable part of overall identity, the instructional identity is related to the all the contents and methods, reflections which a teacher does to act as a teacher (Pennington, 2015). The EFL teachers obtained cultural knowledge and the methods and approaches to make use of them in the classrooms by participating in the cultural negotiation programs. Consequently, it can be concluded that cultural negotiation programs can be facilitative to develop instructional identity of the EFL teachers, as well as, their professional, cultural, and cultural-professional identity.

One point which should be considered as important and future researchers may address is a context for practicing what is instructed in the cultural negotiation programs to the EFL teachers. In this study, since the EFL teachers could practice, simultaneously, the knowledge they accrued in the negotiation sessions in their classes, they could take the most benefit from it. It is related to identity-as-practice (Kanno & Stuart, 2011) in which the contexts of practicing identity related issues help the individuals to develop their identity through practicing the related factors. Furthermore, if the EFL teachers have a context of practicing their obtained knowledge, they will find arena to practice different discourses. This is in association to identity-in-discourse (Kanno & Stuart, 2011) which is about the differences which exist in in different discourses and lead to different identity practices. EFL teacher educators should prepare a context of practice for the EFL teachers in the pre-in service programs to help them practice what they have already obtained in the cultural negotiation programs.

As it was stated earlier, development of teacher motivation is not an easy task. However, the findings of the current study indicated that through participating in cultural negotiation programs, the EFL teachers’ motivation to run cultural discussions and to address cultural issues in the classrooms developed. It can be suggested to the EFL teacher educators to change their perspectives about solely theoretical discussions to the negotiated programs. While the former just address the pure knowledge about different issues,
the latter tries to find an agreement in the way to apply the knowledge about different
issues. When the teachers see their ability not only in the theoretical aspects but also in
how to apply them in their classes, they will become motivate about their teaching
profession.

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Discourse Analysis and Language Pedagogy: A Review

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Abstract
Taking discourse approach towards language teaching has been drawing researchers’ and practitioners’ attention since the introduction of discourse analysis as a discipline in social sciences. Based on the premise that education for sustainable development (ESD) in language pedagogy cannot be realized fully unless language teachers are equipped with theoretical issues in discourse analysis, the purpose of this paper is to review the current research on discourse analysis and language teaching. The focus on the intersection of discourse analysis and language education indicates that three approaches, namely Critical discourse analysis, Descriptive discourse analysis, and Pedagogical discourse analysis have been taken by practitioners in educational context. As for directions of future research on discourse analysis and language teaching, it was postulated that the prospective researchers in the field are expected to focus on operationalizing the discourse concepts at the methodological level. This would be possible if EFL/ESL teachers themselves truly get educated in a discourse-based program in teacher education centers.

Keywords: discourse analysis, language teaching, pedagogical discourse, critical discourse analysis, genre analysis.

Introduction

Language teaching in general and EFL teaching practice in particular have gone through different phases based on the then emerging related pedagogical teaching theories. However, the common resulting theme of employing these theories is almost the same. Students are still having difficulties with their learned “Englishes” in spite of their ability in perceiving and production of linguistically acceptable words, phrases, and sentences (Lezberg & Hilferty, 1978; Olshtain & Celce-Murcia, 2001).

Moreover, the prevalent communicative approach to language teaching with its emphasis on mastering communicative strategies such as inferencing, paraphrasing, using circumlocution, avoidance, – just to name a few – has not resulted in any radical change in the status quo as was expected by the advocates (Cots, 1996; Jin & Li, 2005; Rao, 2002). In other words, the approach is still lagging behind in developing students’ real communicative competence. Of course, this inefficiency can be attributed to factors
like the limited number of class hours, lack of opportunities to interact with natives, and little exposure to out-of-class genres and discourse types (Demo, 2001).

As a solution to the inefficiency of communicative approaches to language teaching, it was suggested that these approaches cannot be succeeded unless they are coupled with “language teachers and other teaching professionals (curriculum developers, textbook writers, language testers) with proper grounding in discourse analysis” (Olshtain & Celce-Murcia, 2001, p. 721).

In fact, experimental and enquiry learning which are usually emphasized in language teaching can be realized through taking a discourse approach in EFL teaching. These strategies are the main objectives of education for sustainable development. (Teaching and Learning for a Sustainable Future, 2018)

Growing out of disciplines like linguistics, semiotics, psychology, anthropology and sociology, discourse analysis generally aims at studying language (both written and spoken) in context (McCarthy, 1991). Having said so, it seems that people in these different disciplines use the term discourse analysis to serve their intended purposes. In other words, they are posing different questions and then suggesting different answers (Johnstone, 2018).

Within the context of EFL teaching, discourse analysis can be defined as “how stretches of language, considered in their full textual, social, and psychological context, become meaningful and unified for their users” (Cook, 1990, p. 3). Based on this definition, some EFL practitioners, in line with Olshtain and Celce-Murcia’s suggestion on grounding in discourse analysis, ventured out into incorporating discourse analysis in their practical teaching professions.

The phrase “ventured out “has purposefully used in the preceding paragraph as it is not that much feasible to adopt a discourse point of view in teaching a language unless one attempts initially to reconsider and modify some of his/her perceptions about language based on the following premises:

- The main focus of language teaching is communication,
- Context is of importance in shaping communication, and
- Meanings are exchanged dynamically in a speech event.

Considering the fact that communicative language teaching cannot be realized fully unless language teachers are equipped with theoretical issues in discourse analysis (Olshtain & Celce-Murcia, 2001), and reconsider their perceptions on language, the next logical issue that should be addressed would be how we can put this theoretical knowledge into practice in the classrooms.

Moreover, it is predicted that the pedagogical consequence of taking such an approach in language teaching would result in a teaching methodology which is highly contextualized, full of authentic instances of language uses in different social situations (Cots, 1996).

The present paper, thus, attempts to review the published papers and reports on employing discourse analysis in English language teaching. As it is not practically possible to present all the published papers in the literature, only selected papers based on their typicality would be reported herewith. This review paper initially examines the papers to find out how discourse analysis has been integrated into language teaching practice. A conclusion has been drawn at the end of the review.
Discourse Analysis in Educational Context

Based on the key concepts in discourse analysis focusing on how people use language in real life for communicating what they mean and also for doing what they want, some language practitioners in an effort to raise a conscious “awareness of numerous discourse conventions” (Belz, 2005, p. 342) have tried to “flavor” their teaching with different discourse approaches. Critical discourse analysis, Descriptive discourse analysis and Pedagogical discourse analysis are the approaches taken by some practitioners in educational context.

Critical Discourse Analysis

Critical discourse analysis defined as “an analytical research that primarily studies the way social power abuse, dominance, and inequality are enacted, reproduced, and resisted by text and talk in the social and political context” (Van Dijk, 2003, p. 352) has been employed in educational settings. In this setting, it aims at developing students’ capacities in evaluating and scrutinizing the world as represented in texts and talks. In this way, the teachers go beyond linguistic training helping the students become critical thinkers something that has been ignored in our EFL teaching courses (Colt, 2006).

In an effort to demonstrate the application of Critical Discourse Analysis (CDA) in language teaching, Cots (2006) proposed some activities to be followed in teaching reading skills. Specifically and in line with Fairclough’s (1992) analytical model, Cots presented three sets of questions pertained to three different levels of text analysis namely social, discursive and textual practices. He claimed that through using these questions, the teachers would be able to approach language use with a critical attitude.

Rahimi and Sharififar (2015) investigated the effect of using critical discourse analysis on students’ reading skills. One of Obama’s political speeches was presented to the students as a reading text. The students were asked to analyze the text once before attending critical discourse analysis (CDA) lectures and then after the lectures. Based on the comparison of the students’ performance in analyzing the text and also their perceptions of the effect of CDA on their performance elicited through a questionnaire, the researchers concluded that CDA facilitated students’ critical thinking ability. As an implication of the study, they suggested that instead of presenting factual texts, both teachers and syllabus designers should prefer ideologically loaded reading texts. Accordingly, they argued that teachers should focus on inferential questions in their reading classes.

Lezberg and Hilferty (1978) in an attempt to prepare students for successful communication in general and helping them in their EFL reading classes to “understand more fully the implications of their reading” (p. 49) in particular suggested focusing on plays as reading texts assuming that the genre includes “those covert elements of social interaction which control and transcend the meaning of each discrete word, sentence, or speech” (p. 50). Also, as an exercise for reading texts selected from current newspaper and magazines, they presented some tasks such as, skimming tasks, scanning tasks and activities, such as before-reading, after-reading exercises and some reading skill builders, such as timed reading exercises. Through doing these exercises, they anticipated that the students would stop fearing reading materials. Engaging as active participants, the students would ask questions and challenge ideas.
Discourse analysis as a heterogeneous field has also formed a backdrop to research in teaching language skills (McCarthy, 1991). Among the language skills, language practitioners have generally focused on reading and writing skills.

In an attempt to take a discourse approach in his reading class, Wu (2017) focused on aspects of discourse grammar, namely identifying and understanding reference and substitution, ellipsis, lexical cohesion, conjunctions and identifying the rhetorical structures. He claimed that using a discourse approach proved to be beneficial to his students as it enabled them to foster their logical thinking ability. The claim, of course, has not been substantiated by any statistics.

Khatib & Safari (2011) explored the relationship between EFL students’ knowledge of discourse markers and their reading comprehension. The findings of the study indicated a high correlation (.71) between the two variables. As an implications of the study, the researchers proposed discourse markers to be taught explicitly as it enhanced students’ reading comprehension.

Based on his secondary research on the application of discourse analysis in EFL reading skill, Ivanov (2009) claimed that discourse analysis made a “paradigm shift” in teaching reading skills in that it first changed the focus from

- Linguistic study of text to study of language in use,
- Bottom-up/top-down approach to interactive approach, and
- Prior knowledge-oriented approach to awareness-oriented approach.

As implications of his study, Ivanov suggested that EFL teachers as well as syllabus designers should “delineate genres that are essential and relevant to particular learners’ needs and to include them in class content and textbooks” (p. 25). Secondly, he claimed that a discourse oriented approach to language teaching would bring about a kind of “language awareness” on certain discourse structures and functions enabling the students to establish relationships between forms and functions. Finally, the approach would enable the teachers to evaluate their classroom interactions that would be of importance in designing classroom tasks.

Focusing on discourse in second language writing classrooms, Paltridge (2018) raised the notion of “genre” that he thought to be useful for teachers in teaching writing. Practically, he proposed a number of ways for focusing on discourse in general and genre in particular in ESL settings listed as below:

- Teachers can take a sample text and analyze it in the classroom to identify its rhetorical structures and moves. The outcome can be used as a model for students to draw on for their individual writings.
- Students are given a sample text/texts to be analyzed in terms of discourse structure in preparation for their own writings.
- Teachers can cut up texts into their discourse structures and then jumble them to get reassembled by the students. The original text, then, can be presented to the students for comparison purposes.
- Based on some key aspects of certain genres, students can be asked to write texts. They are then asked to critique each other’s texts discussing their observations.
- Students can compose a text based on notes. Drawing on what they have already been taught, students are asked to write up the information on the cards in an accepted manner. (A kind of consolidation practice)
• Students can be guided to focus on the thematic progression of a given text to figure out the flow of information in certain genre.

Through carrying out these classroom tasks, the students are expected to become familiar with “the ways of using language that are typical of different discourse communities” (Ibid, p. 662).

Kapanadze (2018) conducted a research on the effect of discourse oriented teaching on improving students’ cognitive and effective skills. The findings of her study indicated that this way of teaching improved students’ reading comprehension skills, their textual analysis and language use abilities.

Furthermore, the main themes emerged in her analysis of students’ interviews on their perception on taking discourse-oriented classes were reported as enhancing students’ thinking skills, meaningful learning, effective organization of ideas, native language awareness, and social skills.

Though the researcher had not elaborated fully on her claimed discourse-oriented method of teaching, she stated that “integration of discourse analysis method to language and literature lessons makes these lessons more interesting and attractive, and so it creates more opportunities for students to attend and actively participate in these lessons” (p. 104).

Discourse Analysis as a Tool for Language Description

The description of language above the sentence and the interest in the contexts and cultural influences which might affect language in use can be regarded as the common themes of different discourse approaches (McCarthy, 1991). In line with this general themes, some language practitioners undertook efforts to use discourse analysis as a tool for describing interaction patterns, discourse markers, teacher talk, and gender representations in EFL context. It is believed that through this approach of discourse, EFL/ESL teachers would be able to acquire a deeper understanding of the nature of classroom discourse providing them with a concrete framework for tuning their classroom activities (Belz, 2005).

Acknowledging the limitations of communicative approaches in developing communicative competence of ESL students, Demo (2001) proposed a four-part process of Record-View-Transcribe-Analyze to study teachers’ classroom interaction patterns. Furthermore, to expose learners to different discourse patterns, he encouraged teachers to make the students do discourse analysis of natural language use in different contexts enabling them to get a deeper “understanding of the discourse patterns associated with a given genre or speech event as well as the sociolinguistic factors that contribute to linguistic variation across settings and contexts” (p. 4).

Employing a qualitative approach, Sulaimani (2017) investigated gender representation in listening comprehension texts included in English textbooks used in Saudi university. The study revealed that textbook material underrepresented females. He supported the claim through indicating the fact that men were represented more frequently than women. Moreover, the number of men occurring in subject position outnumbered the women. The study came to conclusion that the “biased representation of gender in textbooks would hinder the process of women empowerment” (p. 50).

Modhish (2012) investigated the use of discourse markers (DM) that Yemeni EFL learners used in their composition writings. The study also explored the possible relation-
Discourse Analysis and Language Pedagogy: A Review

ship between the use of such markers and the writing quality of the learners. Based on Fraser’s taxonomy, the researcher reported that the most frequently used discourse markers were: the elaborative, inferential, contrastive, causative and topic relating markers. The statistical analysis of the data, however, indicated no positive correlation between students’ total number of discourse markers used and their writing quality. It was recommended that EFL teachers should focus on DMs both inductively and deductively in their classes.

In line with the above-mentioned study, Özer and Okan (2018), through a corpus based study, explored the frequency and the types of discourse markers (DM) used by Turkish teachers and native teachers in EFL classrooms. The results of the study indicated that Turkish teachers used DMs with a less variety compared to native teachers in EFL classrooms. Turkish teachers in this study were found to use 29 different DMs like (“okay”, “and”, “yes”, etc.). Native teachers, on the other hand, used additionally 37 different DMs like (“you know what”, “to begin with”, “you see”, etc.). The researchers, thus, highlighted the “necessity of raising nonnative English language teachers’ awareness towards the significance of DMs in the spoken discourse” (p. 62).

Using conversational analysis as a framework, Gharbavia and Iravani (2014) investigated the quality and efficiency of teacher talk addressing the research question if the talk facilitates or otherwise EFL students’ language use. The study reported that teacher talk in most cases was “repetitive and monotonous” making the students anxious and stressful and thus blocking their learning processes.

Conclusion

Since “international awareness about sustainability was first introduced at the United Nations UNESCO-UNEP International Educational Program” (Iliško, Oľehnoviča, Ostrovska, Akmene, & Salīte, 2017, p. 103), language practitioners have tried to incorporate concepts and ideas proposed by different approaches of discourse analysts into their practical language classrooms trying to get closer to education for sustainable development in language pedagogy. The present review paper indicated that among different discourse approaches, Critical Discourse Analysis (CDA), Descriptive Discourse Analysis (DDA), and Pedagogical Discourse Analysis (PDA) were the approaches taken by some practitioners in educational context. Helping students become critical thinkers besides mastering the basic linguistic structures of the target language was the aim pursued by critical discourse analysis in educational context. Through Descriptive Discourse Analysis, practitioners aimed at describing language above the sentence taking into consideration respective educational context. Pedagogical Discourse Analysis examined the effect of different discourse variables on teaching language skills.

The two initial approaches namely CDA and DDA are of importance in language education in that they acquaint the learners with the natural language use in authentic environments assisting them to deepen their appreciation of the discourse patterns associated with a certain genre that is not possible otherwise (Demo, 2011). In other words, the approaches provide the “students with the language resources and skills which will help them gain access to academic discourse communities” (Paltridge, 2018, p. 2).

The third approach, PDA, aimed at making use of the findings put forward by CDA and DDA in educational contexts which in fact opens a new dimension in language
teaching practice. However, the review indicated that the approach has focused more on reading and writing skills than speaking and listening. Acknowledging the importance of speaking and listening skills in developing communicative competence of the students, scholars who are taking PDA approach should shift their attention to these skills as well.

The other issue the researcher in this field, PDA, are expected to do is exploring the practical ways for incorporating further concepts of discourse analysis in EFL classrooms. The point is that how it would be possible to teach explicitly or otherwise, say, text interpretations strategies such as schematic knowledge, frames of reference, background knowledge, or conversation strategies like turn-taking, repairs, giving feedbacks or any other aspects of discourse that do play a role in enabling the learners to make sense of a piece of discourse or get engaged in an interaction in a certain context?

It seems that there is a common consensus among EFL teachers that sustained educational development as “a multi-disciplinary subject” (Anyolo & Keinonen, 2018, p. 64) would not be realized unless a discourse approach in language teaching has been taken. However, the issue of realization of the approach in educational settings has not been explored fully. In fact, to transit from an approach level to a methodology level, we should come up with a design for an instructional system which includes objectives, content, learning tasks, teacher/learner role and instructional materials (Richard & Rogers, 2014). In other words, the prospective researchers on the field should focus on operationalizing the discourse concepts in methodological level.

Finally, even if we do manage in transition from approach level to methodology level, there would be no guarantee, however, for taking a full-fledged pedagogical discourse approach unless our EFL/ESL teachers themselves truly get educated in a discourse-based program. Through teacher training centers “teacher candidates reach a synthesis about what to become and what not to become when they graduate and become an in-service teacher” (Atmaca, 2017, p. 79). Thus, language teacher training centers are expected to take required measured in this regard tuning themselves with the recent approaches in EFL/ESL instruction. In fact, it would be both unethical and illogical to expect teachers to teach in a certain way for which they have not well prepared.

To reorient teacher education to address sustainability, the major tenets of sustainable development should be applied to education and teacher education (Ghaemi & Kargozari, 2011). In this way, as it has been highlighted by Sunda (2016), it is hoped that through considering language learning and teaching as a part of education for sustainable development we would be able to change our students to critical and independent thinkers questioning current behavior and patterns of life style.

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Raising Saudi Students’ (Energy) Sustainability Awareness through ESL – Teachers’ Thoughts

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Abstract
This inaugural qualitative study solicited English as Second Language (ESL) teachers’ thoughts about using ESL to teach Saudi Arabian (SA) university foundation year students about and raise their awareness of energy and sustainability issues. Fourteen participants from three higher education institutions in the Eastern Province of SA prepared typed responses in a word office document to 15 questions pertaining to ESL teachers’ perceptions, opinions, beliefs, attitudes, knowledge, and values of using ESL to teach sustainability. Data returned by email were iteratively read and insights culled to provide an inaugural profile of ESL teachers’ thoughts about this pedagogical innovation in SA higher education preparatory-year programs. The findings indicated a positive picture towards incorporating sustainability topics into Saudi Arabian ESL curriculum. Participants were enthusiastic about such tasks and about seeking knowledge related to sustainability by various means to augment lack of knowledge. They were of the opinion that this is a legitimate role for ESL teachers and believed that they would be effective and bring value to students’ learning. They readily suggested rich ideas about what a sustainability-infused ESL curriculum would look like. This study was an original one in that it solicited and shared the voices of ESL teachers in SA about the idea of concurrently teaching language and sustainability. Nominal research addresses this pedagogical approach meaning the findings are valuable to ESL training schools, SA university foundation program planners, SA higher education curriculum developers and higher education human resource managers who recruit and hire ESL instructors.

Keywords: sustainability, student awareness, ESL teachers, Saudi Arabia, university foundation year, energy issues.

Introduction
Until recently, Saudi Arabian (SA) citizens have been living in an oil-rich environment with little need to conserve closer to home (Alyousef & Varnham, 2010). Sustainability knowledge in the Arab region is generally poor (Mezhar, Noamani, Abdul-Malak,
Maddah, 2011). A recent study established that SA university students have an immediate need for energy literacy and sustainability pedagogical education (Alghamdi & El-Hassan, in press). Ideally, SA students would be introduced to sustainability issues in their foundation year, completed before they formally enroll as a university student. Saudi university preparatory programs are designed to hone students’ math, language and study skills and perhaps basic computer skills. Unfortunately, existing sustainability-focused courses offered at the university are not designed for, nor provided to foundation-level students.

The current study operated on the premise that because English as a second language (ESL) and English as a Foreign Language (EFL) are part of the Saudi university foundation year, there is an opportunity for ESL instructors to teach sustainability. Given that, the higher education sector in the Kingdom of Saudi Arabia (KSA) employs qualified overseas teachers to teach English (expatriates or expats). These ESL practitioners are often from countries where sustainability is a focus in the national curriculum, such as in the United Kingdom (UK) and the United States (US). These internationally accredited ESL professionals not only have language teaching skills and experience; moreover, they likely have basic understandings of sustainability issues. The possibility of delivering sustainability-themed ESL lessons may accelerate developing Saudi university students’ energy literacy.

In effect, the authors are advocating for a content-based language teaching approach. Brown (2011) explained that the ‘weak’ form of this approach values the teaching of content and language equally while the ‘strong’ form privileges content over language. SA is actively striving for university graduates to be fluent in English (Al-Sobhi & Preece, 2018) partly in response to the globalization and modernization policies adopted in 1990s (Alshahrani, 2016). The weak-form approach is thus recommended because students would equally learn both English and sustainability. Nashat affirmed that education for sustainability (ESD) “can easily be used to teach language” (2011, p. 1). However, “the use of sustainability-based lessons, projects, and courses in the teaching of English as a foreign language is still relatively uncommon” (Nanni, Serrani, & Quieti, 2015, p. 72).

Focusing on this gap in practice, the overarching research question guiding this qualitative study is: ‘What are ESL teachers’ thoughts about using ESL to raise students’ awareness of energy and sustainability issues in Saudi Arabia?’ The research objective was to explore the idea of having ESL teachers instill basic knowledge about and raise SA students’ awareness of energy and sustainability issues in their English lessons at the university foundation level. Achieving this objective involved soliciting ESL teachers’ thoughts about using ESL to teach sustainability while teaching English: their perceptions, opinions, beliefs, attitudes, knowledge and values.

**Literature Review**

To develop this idea, the reviewed literature focused on substantiating the need for sustainability education (i.e., the earth in crisis and Saudi Arabia’s role), the role education plays in fulfilling this need, the Qur’an’s inclusion of environmental protection, and the unique role ESL instructors can play in teaching sustainability and energy issues while teaching English.
Earth in Crisis

Planet Earth is in crisis; Saudi university students must become energy literate and embrace sustainability (Alghamdi & El-Hassan, in press). Scientists have long warned about the global warming phenomenon and foretold the consequences of excessive carbon dioxide (CO$_2$) emissions evident in climate change. However, most people and corporations have not regarded the global impact of the loss of glaciers, rising sea levels, extreme weather conditions, and extinction of non-human species – all impacting humanity’s survival. The scientific community explains that we have a very limited time to address the climate crisis before we surpass irreversible tipping points and lose control over global warming (British Broadcasting Corporation, 2019). Social movements, such as Extinction Rebellion (x.rebellion.org, 2019), and declaration of Climate Emergency (at national and local government levels) have been increasingly gathering their momentum, especially in Europe including the UK, North America and Australasia (Climate Emergency Declaration, 2019).

Saudi Arabia’s Role

Evidence confirms that the primary cause of excessive atmospheric CO$_2$ is the burning of fossil fuels (NASA, 2019), especially crude oil. Of relevance to this study is the fact that Saudi Arabia is a key producer of crude oil possessing nearly one fifth (18%) of the world’s reserves. It is the largest exporter of petroleum in the world. Oil accounts for 50% of Saudi’s Gross Domestic Product and 70% of its export earnings. Saudi Aramco, the state-owned Saudi Arabian Oil Company continues to expand existing crude oil fields, identify new ones and improve production. It intends to double its natural gas production in the next ten years (Export.gov, 2018). This intentional expansion of oil and gas extraction makes it even more imperative that Saudi citizens (including preparatory year university students) are cognizant of both their attendant responsibilities in this crisis and potential role in ameliorating it especially in their home country.

Education is the Key

The United Nations (UN) (2015) adopted resolutions to establish 17 Sustainable Development Goals (SDGs) to be achieved worldwide by 2030. They deal with achieving sustainability in natural resources (e.g., Goals 6 and 14), environmental health (Goal 15), economic growth and employment (Goal 8), infrastructure and sustainable industrialization (Goal 9), consumption and production patterns (Goal 12), and gender equality (Goal 5). In SA, “SDG-related activities will proceed hand-in-hand with the implementation of Vision 2030” (Kingdom of Saudi Arabia, 2018, p. 165). Very recently, “a Royal Order was issued to include the SDGs into education curricula. Work is in progress towards this end, led by the Ministry of Education” (Kingdom of Saudi Arabia, 2018, p. 24).

Three SDGs are particularly relevant to this research about ESL instructors teaching sustainability issues: (a) Goal 3. Ensure healthy lives and promote well-being for all at all ages, (b) Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and (c) Goal 13. Take urgent action to combat climate change and its impacts (United Nations, 2015). Briefly, the authors reasoned that reducing CO$_2$ emissions to combat climate change can be aided by providing respon-
sive, quality education (i.e., ESD, Goal 4.7) especially through sustainability-themed second language education. The latter should help raise SA university preparatory level students’ awareness of sustainability issues (Goal 13.3). Otherwise, current and future generations will not be able to live a healthy life (Goal 3.9) on a sustainable planet.

**Qur’anic Verses on Environmental Protection**

Asking expat ESL teachers working at a Saudi university to teach sustainability issues is further supported by tenets of the Islamic faith. The Holy Qur’an entrenches the notion of the sacredness of the environment and humankind’s obligations to steward and respect it (Bin Muhammad, Shah-Kazemi, & Ahmed, 2010). *He it is Who hath made the earth subservient unto you, so walk in the paths thereof and eat of His providence... (The Holy Qur’an, Al-Mulk 67: 15).* This verse means the earth was made subservient to humankind; therefore, people need to take good care of it and maintain the balance of nature (Bin Muhammad et al., 2010).

In addition, *O mankind! Eat of that which is lawful and wholesome on earth, and follow not the footsteps of the Devil... (The Holy Qur’an, Al-Baqara 2: 168).* This verse refers to the need for humankind to combat evil desires, selfishness and excessive neediness of natural resources and earthly possessions. Connecting and re-connecting with the Creator through prayers leads people to take actions in recycling, energy conservation, environmental protection, tree planting, creating a plastic-free environment, and seeking knowledge in caring for the environment through research. “In short, we must ‘reduce’ our modern lifestyles and our own carbon footprints in every act in our – and our children’s – daily lives as much as we can so that we really contribute to alleviating this crisis” (Bin Muhammad et al., 2010, p. 41).

**Education for Sustainable Development (ESD)**

ESD or Sustainability Education has become a much-needed discipline of education as a result of the UN’s Agenda 21 (United Nations, 1992). “Transformative education” as a new pedagogy, therefore, has to replace the “transmission model” of teaching and learning, which is still being practiced at educational institutions at present according to Bell (2016, p. 52). By contrast, the teacher facilitates the acquisition of skills and competences and inspires and guide [his or her] students-as-learners in addition to essential values and knowledge when “transformational” education is implemented. Bell (2016) maintained that the sustainability context must be central to twenty-first century education. As the “green economy” is emerging, students need to build skills that bring about innovation and creativity, which ensues a sustainable planet, sustainable economy, sustainable enterprise and affordable health care and thus, ESD, is central to twenty-first education. The skill sets include: “skills for living in the world”, citizenship, life and career, and personal and social responsibility. (Bell, 2016, p. 55).

**Language Education for Sustainability**

Zygmunt saw the importance of socio-cultural aspect of sustainability (as a notion) while most scholars focus on its environmental, economic and social domains (2016). Socio-cultural area encompasses language, ways of communication and thought. “[A]
fully developed thinking process makes human beings sensitive to the outer world and its needs which simultaneously become human needs” (Zygmunt, 2016, p. 113). Zygmunt (2016) also maintained that language plays a constitutive role in human life because of its multiple function that connects with perception, thinking, memory, and expression (p. 115). A language user needs to conduct negotiations and hold discussions over environmental issues and to be tactful to his or her interlocutor. Hence, foreign language education is vital for the success of ESD (Zygmunt, 2016, p. 116). Saudi university students are language users (whose mother tongue is Arabic) in the classroom, where they communicate sustainability and other issues, using English as a foreign language.

Unique Role of ESL and Sustainability Awareness

As noted earlier, using ESL to teach sustainability issues is not yet best practice (Nanni et al., 2010). Nevertheless, some countries are reporting success with this approach. In Cameroon, Nkwetisama (2011) asserted that ESL teachers can do more than just teach the language. Nkwetisama (2011) pointed out that “EFL/ESL teaching should not only be limited to the improvement of learners’ language proficiency but also to enable them develop critical thinking strategies that can be useful in environmental sustainability” (p. 111). He hoped that the EFL/ESL teachers would rethink and extend the aims of their teaching profession, which would involve creating materials for simultaneously teaching English and developing environmental awareness.

Nashat (2011) exemplified Brown’s (2011) weak form of content-based ESL when teaching persuasive writing skills by getting students to address the issue of taxing bottled water in Egypt. Nkwetisama (2011) drew on important and complex global sustainability issues to teach Cameroon students critical thinking skills. He also reinforced the importance of using ESL to teach students about the complex relationship between ideologies (power) and language to help them critically understand sustainability. When teaching English for Academic Purposes (EAP), Nanni et al. (2015) drew on project-based learning to teach Thai students the English language while they learned about the Triple Bottom Line (TBL) framework (people, planet, and profit) for investigating the sustainability of major international corporations.

Reorienting ESL Teacher Education for Sustainability

ESL lessons enriched with sustainability-related content are “an excellent medium for language learning” (Nashat, 2011, p. 40). This approach means students can learn about both the English language and sustainability (Brown, 2011; Nashat, 2011). By association, in addition to learning how to teach English, ESL teachers will need to draw upon and/or receive training for and learn about sustainable development and energy issues (Nkwetisama, 2011). To that end, UNESCO (2005) issued guidelines that teacher education institutions can follow when reorienting teacher education to address sustainability; these also apply to ESL credentialing programs.

In particular, UNESCO (2005) recommended that teacher credentialing programs provide opportunities for pre- and in-service students to (a) practice higher-order thinking, (b) learn how to incorporate participatory pedagogies into their teaching, (c) discuss social justice and equity, (d) critically analyze and augment national and provincial
subject curricula with sustainability-related concepts, and (e) engage in values reasoning and values clarification.

ESL Teachers’ Thoughts about Teaching Sustainability

The aforementioned successful examples of using ESL to teach sustainability prompt exploration of teachers’ thoughts about using this pedagogical strategy. They are being asked to take on the double-duty of teaching English and teaching sustainability. Little if any research has been done around the topic of teachers’ thoughts about this, especially in SA where learning English is prioritized and crude oil is the mainstay of the economy albeit exacerbating rising CO2 emissions. The research objective for this study concerns exploring SA ESL teachers’ perceptions, opinions, beliefs, attitudes, knowledge and values of using ESL to teach sustainability. Conceptually, these six dimensions of ‘thought’ differ but collectively they contribute to an inaugural profile.

Succinctly, perception is tied to using one’s senses to acquire information from the surrounding environment or situation. The result is an attitude or understanding based on what was observed. Perceiving often involves noticing things that escape the notice of others or ‘seeing’ things in a particular way. Opinions are views people take and convictions they hold about an issue based on their personal consideration and judgement (not necessarily facts). Beliefs are assumptions and convictions that people hold to be true usually based on past experience (Anderson, 2014; De la Sienra, Smith, & Mitchell, 2017; Kumar, 2018).

An attitude is a settled way of feeling or thinking about something. It is a positive, negative or neutral disposition or inclination towards something (e.g., a like or dislike). Information is outside the brain and able to be perceived; knowledge is something people know or understand through complex cognitive processes – it is inside the brain. If something is valued it is important to people and may drive and guide their behavior (knowingly or not) (Anderson, 2014; De la Sienra et al., 2017; Kumar, 2018).

Method

This qualitative study augmented a previous work that employed a quantitative survey confirming the need for energy literacy education in SA higher education institutions (Alghamdi & El-Hassan, in press). The current study was considered a qualitative study in nature because participants provided detailed typed responses to a set of questions designed to solicit their thoughts on using ESL to teach sustainability. Their words are the qualitative data.

Participants

50 ESL teachers in three higher education institutions in the Eastern Province of SA were approached in person or by email either through the researchers’ personal contact or the supervisors at respective institutions. The study inclusion criteria included being an internationally accredited ESL educator teaching ESL/EFL in a lower university level (e.g., preparatory program, foundation year) with or without knowledge of energy and sustainability issues. Each potential participant received an introductory letter that stated the purpose of the study, assured confidentiality and anonymity, explained the
two methods of participating (an interview or typed responses returned via email) and outlined the study questions. Owing to the qualitative nature of the study, the targeted number of participants were 12 teachers and finally 14 participated in the study, representing a 30% response rate (Creswell, 2009).

**Data Collection Instrument**

Based on the six dimensions of teachers’ thoughts about using ESL to teach sustainability, 15 questions (set out in a two-page word office document) were developed focused on perceptions, opinions, belief, attitudes, knowledge and values. Each dimension included two questions, respectively in numerical order (e.g., perceptions is Questions 1, 2 and 3). Participants typed their thoughts for each question (stated in the findings) into the document.

**Data Collection**

Data were collected in February and March, 2019. No one opted for a face-to-face interview. Participants were given three days to submit their responses via email, prompted with a follow up email. Participants were alphabetically assigned a pseudonym as their email containing their answers was received, recorded on excel worksheets and archived with dates to provide an audit trail. Data were then transferred into 15 word documents, one for each question. These data were then collated into six different word documents, one for each ‘thought’ dimension. Data collection steps were chosen to increase dependability, which requires the research process to be logical, traceable and clearly documented (Tobin & Begley, 2004). Data were analyzed by more than one researcher, contributing to credibility (researcher triangulation) (Côté & Turgeon, 2005).

**Data Analysis**

Data were iteratively read and insights culled, summarized and reported, organized by the six dimensions of teachers’ thoughts about using ESL classes to teach sustainability. When appropriate, descriptive statistics were employed (e.g., frequency, means). Direct quotations were used to provide manifest evidence of teachers’ thoughts, augmented with the researchers’ paraphrasing and interpretation of latent threads of thought (Creswell, 2009). An inaugural summary profile emerged reflecting ESL teachers’ thoughts about this pedagogical innovation in SA university foundation-year programs.

**Findings**

The qualitative data from the 14 participants were presented using the six dimensions of ESL teachers’ thoughts about using English language training to teach sustainability to university foundation year Saudi students: perceptions, opinions, beliefs, attitudes, knowledge and values. Relevant questions for each dimension are integrated into the report.

**Perceptions.** Three questions were designed to explore participants’ perceptions about using ESL to teach sustainability. To reiterate, a perception is an understanding
or insight gained from observing and gleaning information from a situation or surrounding environment.

**Question 1**: “From what you have observed, what do you think is the value of raising students’ awareness of energy or other sustainability-related issues at national and global levels?”

Several participants agreed that it would be very valuable to raise students’ awareness of sustainability because, as Kate said, they had observed that students “are not really aware of these issues.” Anne concurred, having observed that in the KSA, “there is very little emphasis on sustainability-related issues.” Noor also understood it to be valuable because she had observed unsustainable student behavior at the university, including “not bothering to switch off the light when leaving the room.” Such a small thing is significant because it reflects students’ awareness and attitudes.

Based on her observations, Debbie specifically stated that “ESL teachers are... in a unique position to reach this important target group,” which consists of ESL students who are “the young, future leaders of societies.” Ella perceived that raising students’ awareness of sustainability-related issues would widen their world view and help them realize they are “a part of something bigger.” Similarly, Gina emphasized the importance of educating and motivating students about energy efficiency, which is crucial when the aim is “to create long-term and sustainable change.”

**Question 2**: “Do you think ESL teachers can play a role in raising students’ awareness of energy or other sustainability-related issues? What knowledge and skills will you need to conduct a lesson that has such purpose in mind?”

Based on their observations, the majority (64%, n=9) of participants perceived both that ESL teachers can play a role and this role is important or very important. To illustrate, Ella said “ESL teachers can... play a major role... Every teacher and/or instructor has the power to shape and mold his [or] her students’ minds, perspectives, and even personalities.” That being said, some ESL teachers disagreed. Ann perceived sustainability as a standalone subject matter that “is not within the ESL realm.” Batool said “Science, Math and Social Studies teachers can cover such topics.” Jay felt the same way, expressing that it “should be the responsibility of those who are specialized in science or aligned disciplines.” From a non-committal stance, Laila stressed that “what [teachers] need, first and foremost, is the conviction. You can’t expect your students to be excited about something when you are not.”

The second part of this question pertained to their perceptions and observations about what knowledge and skills ESL teachers would need to teach sustainability while teaching English. Both Ann and Fiona indicated they knew already that they did not know enough about ESD to bring about any deep impact on students’ awareness or knowledge. Based on her observations, Helen felt that ESL teachers should at least be energy literate. They need to know about “renewable and non-renewable energy sources [and] have a general understanding of key terms such as solar power and hydropower.”

At the other end of the spectrum, Ella perceived that “[a]part from standard [teaching] skills, any teacher would require, to impart knowledge and understanding, an unbiased and well-formed perspective on the issues surrounding energy and sustainability forms the bedrock of skills required to conduct such a lesson.” To paraphrase Israa’s position, she perceived that ESL teachers are also educators meaning their knowledge base and teaching skills are not restricted to teaching students the English language, but also to help and prepare new generations to become effective community members.
Most (71%, n=10) of the participants’ answers to the second part of Question 2 included reference to teaching strategies and materials and class preparation and activities. To illustrate, Mona observed that when ESL teachers are not familiar with the ESD subject matter, it is important that they plan and read about ESD topics, which can show them how to both conduct a sustainability-infused English language lesson and monitor both aspects of students’ learning. Laila perceived that “teaching strategies play a significant role in delivering topics to raise students’ awareness of sustainability-related issues in the ESL curriculum.”

Overall, a participant pointed out that sustainability-related teaching materials and information about relevant class activities are plentiful and readily available to ESL teachers. Ideally, teachers need to combine reading and vocabulary skills with class discussions on the importance of sustainability issues. Gina became so engaged with the question that she actually created and shared in her response a seven-step lesson plan to raise students’ awareness of sustainability-related issues in an ESL class.

Question 3: “Why do you think an ESL teacher in a university preparatory program would be asked to help raise students’ awareness of these issues through teaching of English? What would be your response to such a request?”

Nearly three-quarters (71%, n=10) of the participants expressed their positivity and willingness to accept such a request. Batool preferred it as “an option” rather than an obligation. The ESL teachers in this study shared multiple reasons for why they thought others would ask them to raise students’ awareness of sustainability issues in ESL lessons. Debbie perceived that SA students mainly learn English so they can travel, study and live aboard. She lamented that “[o]nce in the west, their carbon footprint will increase dramatically” justifying being asked to teach them sustainability while teaching English. Ann observed that students in a non-English-speaking country such as Saudi Arabia may not be aware of global sustainability issues, explaining why someone would ask SA-based ESL educators to use ESL to teach about sustainability.

Kate observed that, as citizens, SA students will become responsible for doing the right thing if they have “awareness of and are properly oriented on this issue.” For her, this explained why she would embrace being asked to use ESL to teach sustainability. Israa said the main task for any teacher and educator “is to prepare the students to be productive, effective and protective toward their community and Planet Earth as a whole.” Noor perceived that university teachers “have the last chance to inculcate the sense of citizenship in their students.” ESL teachers especially “have the liberty to talk with their students about various topics in class.” She noted that once students graduate from university, they might not have another opportunity for formal education.

Opinions. Two questions focused on soliciting ESL teachers’ opinions about using ESL to teach sustainability. Opinions are personal expressions of feelings or thoughts about something that may or may not be fact or evidence-based.

Question 4: “In your opinion, how can ESL teachers play a role in raising students’ awareness of energy or other sustainability-related issues?”

Overall, participants expressed the opinion that ESL teachers can play a role and half (50%, n=7) of them suggested classroom activities for how they can raise students’ awareness of sustainability issues. Without quoting any particular participant, these ideas included: project-based learning, sustainability theme-based documentary videos, critical thinking-based research assignments and presentations, classroom discussions
that create a space for students to express their feelings about sustainability, role playing, and sustainability-informed reading comprehension passages.

The general consensus was that ESL teachers can develop an ESL language curriculum that encompasses local and global energy issues. The most effective way (i.e., how) is to embed and integrate these issues and themes into the ESL curriculum. Following the development of such an ESL curriculum, they suggested that classroom instruction will evolve and classroom activities can be incorporated into the ESL sustainability-themed lessons.

Using a different framing of how, some participants felt that ESL teachers can be influencers. To illustrate, Debbie opined that “students take an interest in what the teacher values … (whether or not they agree with their teacher).” In her opinion, teachers have a responsibility to present important sustainability issues to ESL learners “with honesty and enthusiasm and with information that is well grounded in the best research possible.” Such a strategy would help students appreciate how important sustainability is with the ESL teachers’ tasks being to motivate and help students to develop intrinsic awareness of these issues. One way to do this is to provide authentic, real-life examples. For instance, water wastage and excessive water consumption in SA has exhausted water in the aquifers, which cannot be replenished.

As an outlier, Jay was of the opinion that having expat ESL teachers advocate for sustainability “will be worse than unpopular [in]...a traditional society [like SA].” She was of the mind that success in raising students’ awareness of environmental and sustainability issues would be more likely if the government were to take the lead not ESL teachers.

**Question 5:** “What are your opinions about whether ESL teachers should be involved in planning for a language program that raises students’ awareness of energy or other sustainability-related issues?”

This is a normative question intimating obligations and necessity – should ESL teachers be involved in planning language programs that contain sustainability? Two participants refrained from expressing an opinion about teachers’ obligations. Ann said “knowledge is the key to improve the standard of living and the future of all.” By this she intimated ESL teachers’ obligation to teach this but refrained from articulating an opinion. Israa was strongly of the opinion that “teachers and students must be fully educated about issues of sustainability” but she did not indicate whether ESL teachers should be the ones teaching these issues. The remaining participants (86%, n=12) expressed positive opinions about ESL teachers’ involvement in planning ESL curricula embedded with sustainability using words such as “should be involved,” “a plus!” and “a great idea.”

In addition to their opinion that ESL teachers should be involved in planning language programs that contain sustainability, some participants went further and suggested how this might happen. ESL teachers could be involved in SA universities’ initiatives to plan their ESL curriculum to be taught by expat teachers. Sustainability specialists could be involved in planning the ESL language curriculum thereby ensuring the embeddedness and integration of sustainability-themed issues. Energy issue and sustainability-topic language lessons and activities can be planned ahead of time and shared amongst ESL teachers.

That being said, some participants felt this subject matter would be better planned and taught by teachers who are specialized in it rather than ESL teachers. For example,
Ann was of the opinion that this subject may already “be taught in science subjects: biology, nutrition, geography, etc.” suggesting there is no need for ESL educators to be involved. Ella opined that teachers who are “qualified enough to be involved [perhaps]” (intimating possibility not obligation). Individuals who are “accomplished and well read in the subject matter should also” be included in planning sustainability-related ESL curricula. Debbie thought ESL curriculum should include sustainability issues: “I don’t see a need to have a [university] program solely focused on energy and sustainability.” In contrast, Jay expressed the opinion that “sustainability is already a specialized course for undergraduates in other disciplines” thereby intimating that they do not need exposure to it in ESL language classes.

Beliefs. Two questions focused on ESL teachers’ beliefs about their role in using language classes to teach about sustainability. A belief is something people know, feel or are confident is true; their mind accepts it as true (Anderson, 2014).

**Question 6**: “What are your beliefs about your role as an ESL teacher in raising students’ awareness of energy or other sustainability-related issues?”

The majority (79%, n=11) of participants were positive about their role in teaching language with a sustainability theme. In their words, they believed their role would be: “effective,” “pivotal,” “important,” even “obligatory” and “necessary.” Furthermore, Israa believed it was “everyone’s responsibility to raise students’ awareness of energy or other sustainability-related issues;” this role is not limited “to just ESL teachers,” who do have a role. Kate believed she would “feel great and happy” to play a role in raising sustainability and energy awareness among her preparatory year ESL students. Two participants were skeptical about the role they could play in this regard. As noted before, Ann believed that global concerns are not a focus of ESL lessons and Jay was convinced that an expat ESL teacher could not deliver such lessons effectively in a host country.

Participants collectively believed that their involvement would strongly benefit ESL students. Without naming anyone specifically, ESL teacher participants believed they could: (a) open students’ minds and widen their horizons to individual and global communities and (b) help them to become independent, patriotic and nationalistic on top of developing their metacognition via language learning.

**Question 7**: “What are your beliefs about education for sustainable development (ESD)?”

Without quoting any particular participant, the researchers gleaned several insights into participants’ general beliefs about ESD, which they are being asked to integrate into the English language curriculum. First, ESD is important. A participant believed that Islam holds that it is obligatory to teach students the importance of sustaining lives on earth. Another belief was that ESD for Saudi youth is crucial in these times of fast-changing development/modernization, which is taken place at the expense of KSA’s natural resources.

Second, participants were convinced that ESD serves several key purposes. It teaches Saudi students to live a sustainable life and maintain a healthy planet. More importantly, it serves to imprint an entire Saudi generation with the right attitude and automatic reflexes in dealing with sustainability-related issues. Third, many participants believed that ESD-themed materials and activities can be incorporated in ESL language lessons; ESD holds a key function in students’ learning. Some participants were convinced that embedding ESD into Saudi ESL curricula means the Kingdom would be joining many
Attitudes. An attitude is a positive or negative disposition towards something (De la Sienra et al., 2017). Two questions focused on participants’ favorable or negative inclinations towards raising students’ awareness of sustainability issues in their language classroom.

Question 8: “What is your attitude toward raising students’ awareness of energy or sustainability issues?”

Literally all participants (100%) exhibited a positive attitude toward raising students’ awareness of sustainability issues. Their language revealed how strongly they felt: “it is excellent,” “I strongly approve of it,” “it is the need of the hour,” “we should do this,” and “I am extremely positive about it.” Awareness “has to begin in the home as well as within the educational system,” Ann remarked. Laila said teachers “should lead by example on this topic.” Noor asserted that “everyone must be taught about energy and sustainability issues.” Helen had a positive attitude as well but pointed out that sustainability “is still a relatively new topic for the students in the Kingdom.”

Question 9: “What would be your first response if you were asked to teach English with a theme of energy and sustainability?”

Asking about their knee-jerk reaction to being asked to teach English language acquisition with a sustainability theme was a roundabout way to discern their attitude. Virtually all (93%, n=13) participants described their first response to this request in a positive manner. One ESL teacher, however, said “not keen.” Examples of positive responses include “glad,” “happy,” “I would appreciate,” “I would not hesitate,” and “I would be excited.”

They further supplemented their positive first responses with the following insights attributed to no one in particular. In Saudi Arabia, an ESL educator can reach more individuals making them aware of these environmental issues and inspire them to get involved. Using the sustainability theme to teach English is not much different from teaching the theme of ‘going to the restaurant’. Two participants expressed their need for teaching materials from their institution so they can adequately teach about sustainability while teaching English. Helen said that when teaching English using ESD themes, “I would do research ... prepare [and deliver lessons] to the students according to their English proficiency level.”

Knowledge. Knowledge is something one knows or understands through complex cognitive processes; knowledge is in the mind while information is outside the mind. Four questions focused on this dimension. Participants were asked if they thought their academic background would have an effect on their teaching an ESD-infused ESL curriculum. After inquiring into their interest in the topic of sustainability, they were asked how knowledgeable they felt about sustainability issues and what they thought an ESD-focused ESL curriculum might look like.

Question 10: “Was your major in arts, science or was it multidisciplinary? How do you think this academic background will affect you teaching ESL from a sustainability perspective?”

The majority (67%, n=10) of participants had an arts background, followed by science (25%, n=3) and multidisciplinary (8%, n=1). All of the ESL teacher participants with a science background said they were informed and had a solid foundation for teaching ESD while teaching language. Fiona was the only participant who has a multidis-
ciplinary background. She said: “I have no problem dealing with this subject.” Kate, with an arts background, still appreciated that “teachers who possess multidisciplinary knowledge are able to teach students specific topics but at the same time relate them to a broader topic by thematically linking these topics together.”

Four teachers with an arts background (40%) expressed some concerns. To illustrate, Gina said “I think it will affect [me] greatly” when teaching ESL from a sustainability perspective. On the other hand, most (60%) of the participants with an arts background said they had found ways to overcome their sustainability knowledge gap. For example, Debbie said “I am able to research different sides of sustainability issues and do not get caught up in rhetorical narratives created by people who have an agenda for putting forward their ‘facts’.” She uses her critical thinking skills, which are the foundation of any ESL curriculum, in “understanding global issues.”

Similarly, although Helen has a Doctorate in Applied Linguistics, she said this arts background “will not affect” her teaching ESL from a sustainability perspective. She accepted that “I will certainly have to read up more and to deliver English lessons centered on sustainability.” Israa, whose major is English Language and Literature, felt the same as Helen. Laila believed her background in English Literature and Translation enabled her to read more critically and “be aware of different issues, such as sustainability.”

**Question 11:** “As an ESL teacher, are you interested in science or global sustainability issues? Explain your answer.”

This question assumed that an ESL educators’ interest in science and sustainability is associated with them bringing sustainability into the ESL curriculum. All three teachers with a science background said they were interested in scientific and global sustainability issues. Ann explained that “scientific and global sustainability issues are coupled together.” Batool pointed out that her interest stems from the fact that “global sustainability issues affect everyone.” Ella said her interest reflected her own “educational background, moral and belief system, and overall perspective” more so than formal training in the topic. Laila’s interest in sustainability issues was limited to “doing my own share by learning more, passing on the knowledge and the attitude within my family, students, colleagues, and community.”

**Question 12:** “Do you think you have sufficient knowledge (and skills) to prepare and teach lessons dealing with energy and sustainability issues?”

Of those who answered this question (n=12), half (50%) said they think they have sufficient knowledge with most clarifying that it is limited to basic understanding of the topic and related issues. They would need to do research, read up and collect data and more details about sustainability for their ESL lessons. One quarter (n=3) of the participants said they did not think they have enough knowledge and skills to deliver such lessons saying they would need more ideas, training and research into the topic so they can stay prepared and continue learning. Another three participants (25%) said they do not possess the knowledge and skills needed to teach energy and sustainability issues. Aside from being knowledgeable about it, Ann cautioned that “not every ESL teacher wants to teach about sustainability issues.”

**Question 13:** “What do you think an ESD-focused ESL curriculum would look like?”

So prompted, virtually all participants tendered ideas about what an ESD-focused ESL curriculum would look like. In general, they thought it would be well-structured
Amani K. Hamdan Alghamdi and Wai Si El-Hassan

(not fragmented) and use scaffolding from K-12, building on what non-university Saudi students have already been exposed to about sustainability and energy issues.

Content-wise, to the best of their knowledge, participants said that an ESD-focused language curriculum would include local and global sustainability issues including pollution, citizens’ responsibilities, water consumption and wastage, electricity over-consumption, household recycling, and caring for and maintaining the environment and natural resources. This range of topics are strictly related to the real-life problems in KSA.

Instruction-wise, ESL teachers would use project-based teaching and engaging learning activities (i.e., colorful, vibrant and practical) within the school and community. They would use energy and sustainability-oriented reading comprehension passages. Sustainability would be embedded in and integrated into grammar, vocabulary, writing, listening and speaking exercises. ESL teachers would draw on energy and sustainability-oriented reading materials and texts and documentary videos. Class discussions to practice English would incorporate ESD and energy issues. Preparatory-year Saudi students would be required to conduct sustainability-related research while practicing and learning English.

Values. Two final questions sought to explore whether ESL teachers think it is important (of value) that they personally know how to teach and that students learn about energy and sustainability issues in the ESL university preparatory classroom. If something is of value, it may guide behavior.

**Question 14**: “Do you think it is important that ESL teachers be able to teach energy and sustainability issues in university preparatory programs? Explain your answer.”

Virtually all (93%; n=13) of the participants thought it was important that ESL teachers be able to teach energy and sustainability issues in university preparatory programs with most sharing reasons why. Some reasons were articulated when answering other questions, so only new contributions are shared here. Noor reaffirmed that although it is important that ESL teachers be able to teach about sustainability, “they must be taught about sustainability issues before they can teach about them.”

Being able to teach about sustainability and energy is important because ESL teachers’ efforts can socialize students to the pressing issues of our time. Israa suggested that teaching sustainability in ESL classes “lays a foundation for those students who are willing to major in related courses after they complete their journey in the preparatory year.” Laila agreed claiming that teaching sustainability “will help students to learn early on that they have control of our individual actions and habits that collectively have an impact that may even surpass their expectations.” Gina concurred noting that “it will bring about significant impacts on the future decisions of the learner.” Kate said it is important that ESL teachers know how to teach about sustainability because “it is a global issue that transcends borders, beliefs, or nationalities.”

**Question 15**: “Do you think it is important that ESL students learn about energy and sustainability issues as they learn the English language? Explain your answer.”

This question focused on whether ESL teachers think university preparatory ESL students gain value from learning about sustainability as they learn to speak English. When answering this final question, most participants reiterated points previously made in other questions – a data characteristic that signals the research probe was exhaustive (i.e., data saturation, Creswell, 2009). Over three-quarters (80%) of study participants said that this was of value and important. Jay argued instead that the focus of ESL lessons is to speak a second language not to learn about sustainability.
Fiona felt it was important (of value) because “sustainability is about making sure that students understand that development must not compromise our natural resources in order for our next generation to have something to live on.” Laila saw value because “preparatory year students are on the verge of embarking on a new stage of their lives. What they experience, learn, or get exposed to at this stage may have a huge impact on their future behavior patterns. They are the future of their families, communities, countries and the world at large.” Israa concurred by maintaining that all students “should learn about all the global issues that might challenge them after they leave college. That is, students must be equipped with the kind of knowledge they can apply in their everyday life.”

Thinking along broader horizons, Kate said that ESL students were to “apply the value of appreciating the world that they live in” and Gina said that ESL students learning about sustainability is valuable because they are “the future of a country.” University preparatory students will be prompted “to make minor changes and take steps for the betterment of an environment they live in, it quickly leads to behavioral changes which last long and the outcomes are excellent putting forward valuable students and citizens.” Succinctly, Fiona believed that learning about sustainability was as important as learning a language “since sustainability is relevant to everyone’s life and survival.” She further said that it was “about making sure that [students] understand that development must not compromise our natural resources in order for our next generation to have something to live on.” Envisioning some SA university students living and working abroad after they graduate, Debbie commented that what they learn about sustainable living “would be valuable for Western countries and thus for the world as a whole.”

Conclusion and Implications

With respect to the intent of this study, data analysis and interpretation lead to the emergence of an inaugural profile of ESL teachers’ thoughts about teaching sustainability and energy issues while teaching English to university preparatory-year Saudi students.

Inaugural ESL Teacher Profile

SA ESL teachers perceived that (a) it would be valuable to use ESL to teach sustainability to university preparatory-year Saudi students, (b) ESL teachers can play a role in teaching sustainability and (c) there are many reasons why they would be asked to do so and they would be receptive if asked. As Zygmunt (2016) asserted, students (i.e., language users) need to learn the language and the socio-cultural aspects in order to communicate sustainability effectively. Participants were of the general opinion that ESL teachers can and should be involved in planning for and teaching about energy issues and sustainability. The majority of participants believed that using language lessons to teach sustainability would be effective and important and it would especially benefit ESL students by widening their horizons as well as developing their metacognition. They believed ESD is important especially in oil-dependent Saudi Arabia with all its implications.

Virtually all participants had very positive attitudes about raising preparatory-year students’ awareness of sustainability issues in their language classroom and using ESL to do so. Regarding knowledge, science and multidisciplinary participants felt confi-
dent teaching an ESD-infused ESL curriculum while those with arts backgrounds were mixed. Interest varied as well, with some very and others not interested at all in the topic of sustainability. Only half felt knowledgeable enough about sustainability and energy issues but almost all had viable suggestions for what they thought an ESD-focused ESL curriculum might look like. Besides, Bell (2016) pointed out that ESD is “transformational”; therefore, the teacher no longer needs to function as ‘the transmitter’ of knowledge. Rather, he or she is a facilitator of students’ learning. Most saw value both in ESL teachers being able to teach and students learning about sustainability with more (93%) participants valuing teachers knowing how to teach than students learning about sustainability (79%).

This inaugural profile augments several insights from the literature. ESL lessons enriched with sustainability-related content are “an excellent medium for language learning” (Nashat, 2011, p. 40). “Fusing environmental education with language acquisition can elevate students’ interest in current issues that could directly influence their futures” (Young, 2016, p. 8). Both of these sentiments pervaded this data set; teachers, students, the Saudi nation, future generations and the Earth were all perceived to benefit. Furthermore, since it is uncommon to infuse sustainability into ESL lessons (Nanni et al., 2015), the study participants still tendered rich insights into what such a curriculum would look like (matching those suggested by Jacobs and Cates (1999) for global education and Young (2016) for environmental education, both in ESL classes). Other nations’ success with using ESL to teach sustainability (Nanni et al., 2015; Nashat, 2011; Nkwetisama, 2011) bodes well for Saudi Arabia, especially when bolstered by the findings from this inaugural study. If our findings are any indication, it is safe to conclude that ESL teachers working at Saudi universities (at least in the Eastern Provinces) will be receptive to being asked to use the ESL curriculum to teach sustainability in the preparatory year.

Those universities that decide to redirect resources towards developing instructional materials and in-servicing as suggested by UNESCO (2005) and requested by study participants will need to respect three key findings. First, participants wanted to be involved in developing this curriculum. They tendered many valuable pedagogical contributions. Second, many ESL teachers did not feel knowledgeable enough to bring sustainability into their ESL lessons despite seeing value in the exercise (see also Mezhar et al., 2011). Third, ESL teachers with an arts background who felt less-than-confident engaging in this approach were inclined to take steps to address their knowledge gap, meaning they will likely avail themselves of institutional resources and support materials. As a caveat, these materials must simultaneously prepare ESL teachers to teach English and teach them about sustainable and energy issues (Nkwetisama, 2011).

SA higher education ESL programs should build on the value that study participants saw in teachers knowing and students learning about sustainability. That being said, findings revealed that ESL teachers’ interest in the very topic of sustainability varied so initiatives designed to entice them to use their language lessons to teach sustainability should remain cognizant of this outcome. Lack of interest may mean lack of uptake. It is hard for people to have an interest in something they do not have (e.g., knowledge of sustainability) (McDougall, 1923). A minority of participants thought that (a) ESL should be used only to teach English and (b) expat ESL teachers are not in a position to teach sustainability in Saudi Arabia. This qualitative study precludes suggesting how pervasive these points of view are in the SA ESL community but they did emerge as findings.
Bottom line … the earth is in crisis and Saudi Arabia is a major oil producer (inadvertently contributing to CO2 emissions) with education the key to addressing attendant pressing issues (United Nations, 2015). Very recent research has substantiated that Saudi university preparatory students are not energy literate (Alghamdi & El-Hassan, in press). It is imperative that Saudi ESL curriculum designers and higher education administrators involved with the preparatory level program consider using ESL to teach sustainability.

References


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