

Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 116 (2014) 2931 – 2935

Procedia
Social and Behavioral Sciences

5th World Conference on Educational Sciences - WCES 2013**Holistic approach in reorienting teacher education towards the aim of sustainable education: the case study from the regional university in Latvia**Jelena Badjanova^{a*}, Dzintra Iliško^b, Elga Drelinga^c^a*Daugavpils University, Parādes -1, Daugavpils, Latvia*

Abstract

The purpose of the article is to analyze the current debate on efforts of teacher trainers in re - orienting education towards the aim of sustainable education. This is a new challenge for teacher training institutions in Latvia that is being discussed and evaluated in depth and in detail in the context of global challenges in education. The examination of educational standards and programs for the primary school level teachers makes one to conclude that teachers who are not aware of the deeper meaning and the essence of sustainability perspective, encounter major difficulties in implementing pre-school curriculum since it does not offer ready-made answers to the current educational challenges and the debate, neither it offers a sample or a set of methodological handouts for teachers in regards to sustainable education. Therefore, teachers need to become agents and creators of their own materials grounded in the idea of sustainable education. The article comprises the results gained from the semi - structured interviews with the primary school teachers and the data gained from the questionnaires on teachers' perception of reorienting teaching towards the aim of sustainable education. For the conclusions and recommendations, the authors highlight the major challenges and struggles of integrating sustainability perspective in teacher training programs as viewed from the primary school teachers' perspective as well as offer the guidelines for a more efficient ways of reorienting teachers' thinking and acting towards the aim of sustainable education.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and/or peer-review under responsibility of Academic World Education and Research Center.

Key words: sustainable education, holistic approach, teacher training, professional competence.

1. Introduction

The holistic approach can offer a perspective for reevaluating the way the primary school teachers' view and carry out their teaching. Holism draws upon ecological and system approaches in education and tries to address fragmentation, teachers' alienation and affirms holistic and sustainable ways of living and teaching (Bohm, 1995; Lovelock, 1988; Capra, 2002; Miller, 2000; Wilber, 2001). It embraces the quest for meaning and knowledge rooted in values of wholeness. Holistic education enables teachers to become agents of change in their classrooms and to

* Corresponding Author name: Dzintra Ilisko. Tel.: +0-371-29378690

E-mail address: dzintra.ilisko@du.lv

take control over their learning. It gives teachers a wider perspective to view their practice from the point of interconnectedness of political, social, cultural and economic factors of sustainability.

2. Sustainability perspective

Challenges of sustainability arise from global crises in the world. It provokes fundamental existential questions about the choices we make and the goals and the priorities we set for the future.

The terms „sustainable development” was first pronounced in 1972 at the United Nations conference on the Human Environment and was understood as „meeting the needs of the present without compromising the ability of future generations to meet their needs” (WCED, 1987, p. 43). The main focus of sustainable development was on integration of ecological, economic, and social dimensions into a decision making towards managing our ways on the Earth. Today sustainable education is viewed as a multi – dimensional concept having no single definition because of a multitude of different local contexts. Majority of definitions do not put the emphases on the agency of the teachers and do not support encouragement of individual’s capability to make choices to change their environment. What is lacking in most of definitions is the agency and applicability of SD.

Sustainability can be defined as an integration of four components into the curriculum: *ecological* (the integrity of ecological systems); *economic* (sustainable livelihoods and reasonable use of resources); *cultural* (respect of cultural traditions); and *political* (the agency of each participant) (Lang, 2005, p. 1). UNESCO (2001, 2002) has set as a priority to reorient various institutions towards the aim of sustainable development by integrating values of sustainable development into all aspects of education and learning. This priority is highlighted in *United Nations Decade of Education for Sustainable Development* (DESD, 2005 – 2014). Sustainability begins with the awareness about the unsustainability of our livelihood on many levels: *ecological unsustainability* (consumption of natural resources unsustainably); *personal unsustainability* (misuse of unreasonable use of people’s capacity, integrity, resources and time); *social unsustainability* (exclusion, corroding social harmony or integration, setting constraints to self - expression), *discursive unsustainability* (fostering false or unsustainable discourses); *political unsustainability* (depriving agency), and *economic unsustainability* (exclusion of disadvantaged groups) (Kemmis & Mc Taggart, 2005). Education for sustainable development aims to develop values of teachers to change their lifestyles and choices towards achieving a sustainable future. This means developing preschool teachers as active agents in line with the transformation processes in the country. This will lead toward ecological, economic, social, cultural and personal sustainability. UNESCO experts believe that the challenges which schools and the society are facing can be addressed keeping holistic approach in mind.

2.1 Research method

For the purpose of this study the authors have used ten semi - structured interviews, four focus group interviews (N = 84 participants) with the teachers participating in an service further professional training organizing by the regional University, and the questionnaires (N = 84) with the pre - school teachers from Latgale, Vidzeme, and Zemgale. All participants are females who have experience of work in the preschool setting. The teachers were offered to fill in a questionnaire on a voluntarily bases by explaining and sharing their understanding on implementing the ideals of sustainable education in their practice. They were asked the following questions: Please, define the concept of sustainable education. What does the concept of sustainable education mean to you? Share your best experience in implementing the ideals of sustainable education in your teaching. What are the most important problems you encounter regarding education for sustainable education in your practice? What do you feel is missing? How do you address global issues that are holistic in nature in your teaching? What values should be at the core of sustainable education?

2.1.2 Teaching with a holistic perspective in mind: overcoming limitations and mapping the future

For the pre-schools teachers to address sustainability problems, a fundamental re - thinking /shift of the purpose and the mission of education needs to take place. The main features of post – Soviet space can be described as a lack of democratic personalities, inability to accept democratic values and changes as a natural part of democratization processes, conviction in one true way, explicit polarization of the society, civic passivity and an authoritarian attitude towards life (Rubene, Geikina, & Svence, 2008).

This explains pre - school teachers' alienation, powerlessness and disappointment in the ideals of democracy and skepticisms towards any new ideologies and the theories. Majority of pre - school teachers are lacking a deeply personal philosophical vision of a sustainability oriented teaching practice. Participants have emphasized different aspects of sustainable educations, such as whole child teaching, integrated curriculum, ecological upbringing, and others, though there was no general understanding on what they perceive as the bases of the concept. One participant has enlarged the notion of sustainability with aspects of inclusive education and social justice, and ethics. Some teachers highlighted the interconnectedness of economic and environmental dimensions of sustainability. Still, majority of teachers translate the notion of sustainability in a quite linear manner, many of them consider it in a direct translation as “a long term education” or as a futuristic never reachable “education of the future.” In semi - structured interviews and focus group interviews with the primary school teachers, one can trace some fragmentary features of sustainability ideals as implemented in everyday teaching in a pre – school setting or a diverse combination of features as practiced in everyday teaching, such as integrated teaching; perception of a child as a whole, by respecting physical, emotional, cognitive, psychomotor dimensions of a child; emphasis on a child - centered teaching practice, experiential learning, and constructivist modes of teaching. Majority of teachers are not aware of interdependency and interrelatedness of all dimensions of sustainability. They pay more attention to ecological and economic dimensions of sustainability. They have shared examples of good practice of practicing ecological sustainability and blame politics directed towards the economic unsustainability of the current practice. They still are lacking a holistic vision of sustainable education.

The dominant mode of teaching in a number of school settings is transmissive teaching. This mode of teaching is reinforced by the willingness of teachers “to cover overloaded curriculum.” Transformative teaching is lacking in majority of teachers' practice. This means teachers' willingness to recognize political, social, and economic issues in their practice as well as taking actions to change the situation. Transformative learning means transforming unsustainable practices, thinking and the ways we relate to the circumstances around themselves.

Teachers overemphasize the importance of ecological upbringing in preschools aimed at developing virtues of a sustainable live hood. Ecological aspect predominates over the other aspects of sustainable practice. As teachers have commented that they deal quite successfully with the ecological dimension of sustainability while neglect the other aspects of sustainability. They shared their experience of good practice in transforming pre - school children's ways of sustainable living and acting. Only some teachers emphasized a clear interconnectedness of all aspects of sustainability and its relatedness in their teaching and praxis. Education for a sustainable development is more than a knowledge base related to environment, economy, and society. It addresses learning skills, perspectives, values, and attitudes that guide teachers and children to learn, to understand and to practice sustainable livelihoods and to live in a sustainable manner. Only few teachers from the overall pool of interviewed and questioned teachers are aware of the interconnectedness of political, economic and cultural aspects of sustainability. Pre-school teachers believe in a power of experiential learning in solving sustainability problems through hands on learning (Wright, 2006).

They claimed practicing child - centered approaches in learning by paying attention to all: cognitive, effective, and psychomotor dimensions of learning. Integration of cognitive and affective dimensions of learning takes place quite successfully in a preschool setting. This involves flexibility and complexity into the curriculum, by introducing new teaching and learning methodologies and creating space of active participation of preschool children.

Many pre - school teachers believe in a power of constructivist pedagogy and put more focus on engaging young learner in learning about sustainability issues in a collaborative learning environment. They believe in a power of a child - centered pedagogy and they claim to respect the needs of young learners by providing them space for the meaning - making process. There are a number of successful attempts to be mentioned to implement a curriculum in an interdisciplinary way by structuring activities around the major theme of the week in a multi disciplinary way, as shared by the teachers.

Though, the use of a multi - disciplinarily approach by understanding economic, political and economic dimensions of sustainability is still not the major agenda for the pre-school teachers. Preschool teachers still put the overemphasis on the importance of ecological dimension over the other aspects of sustainability. Sustainable education by them can be described by: child - centered teaching where children set personally meaningful questions and gain meaningful understanding.

The questionnaire was carried out to study primary school teachers' understanding about the sustainable education. 86 participants from different regions of Latvia took part in a questionnaire. In teachers responses one can trace teachers' awareness about the diverse aspects of sustainability. Teachers' responses can be grouped in two large categories: 1) sustainable view of education; 2) unsustainable dimensions in teaching. The analyses of environmental dimension point to the existence of the following aspects of unsustainability in teachers' practice: attitude; inability to see interconnectedness, predominant transmissive modes of teaching. In teachers' responses one can trace awareness about the following aspects of sustainability: social, economical, and environmental. Teachers do not see interconnectedness between those issues and particularly this is hard for them to see the political and culture dimensions of sustainability. They pointed out to the contradictions that exist in the official documents and the reality. Among the social issues teachers have mentioned low teachers' prestige in the society and cultural diversity. Among the economic issues the teachers have mentioned unsustainable regional development, low social benefits, and low salaries of pre - school teachers.

Among the sustainability aspects as practiced by the teachers (N = 80) they have mentioned transformative teaching, perception of a child as a whole, teaching based on the needs of a child. Many (36) teachers could not identify any aspects of a holistic education in their practice. Other teachers have pointed out to the following aspects of sustainability in their teaching: awareness and involvement in solving real life issues (45 cases), holistic vision (14 cases); integrated teaching (52 cases); child - centered approach towards teaching (35); contextual approach (34); transformative teaching (42); teaching based on respecting the experience of a child; interconnectedness (23); a constructivist teaching (24); and ecological upbringing (56).

2.1.2. Conclusions

Sustainability represents a perspective that is based on the most fundamental ethical, epistemological and metaphysical considerations which describe a human being (Pavlova, 2008). For the transformation to take place towards sustainable development, sustainability should become '*a frame of mind*' (Bonnett, 2002) for each pre - school teacher.

Education should become the most powerful tool to make children to think differently about the world and one's place in it. Meaningful learning should be informed not only by cognitive ways of knowing but also by intuitive and spiritual knowing that is informed by cultural, environmental and community values.

Sustainability is concerned with transforming preschool teachers' patterns of thinking. Bateson (1991) calls this as belonging to cosmos where human is not an alien observer but a responsible '*participant in a phenomenal world*' (Berman, 1984, 2). Teachers need to make a hermeneutical turn and to begin to explore '*the mythic, narrative resources of living traditions in order to re - orient moral consciousness*' (Schweiker, 2007, 438).

Sustainable education can offer a new identity to preschool teachers to teach with a moral imperative that will help pre - school children and teachers to become more responsibly embedded in the natural world.

Preschools need to answer epistemological questions of human existence and to prepare children for an active life and social responsibility. This also means challenging traditional ways how we teach so that preschool children can translate knowledge into positive actions for the sustainable future. As Huckle (2003) pointed out that shift should take place from the emphases on the past and modernity towards the future in order to embrace new forms of knowledge, and new ways of teaching and learning.

Sustainability pedagogy is focused on change as finding new ways of living so that human systems are in harmony with ecological systems. This means changes from the transmissive forms of teaching to transformative and experiential forms of learning.

Acknowledgement

This work has been supported by the European Social Fond within the project “Support for the implementation of Doctoral Studies at Daugavpils University (Agreement Nr. 2009/0140/1DP/1.1.2.1.2/09/IPIA/VIAA/015).

References

- Bateson, G. (1991). *A sacred unity: Further steps to ecology of mind*. New York: Harper Collins.
- Berman, M. (1984). *The re - enchantment of the world*. New York: Bantam Books.
- Bohm, (1995). *Unfolding meaning*. Oxford: Routledge, 12-13.
- Bonnett, M. (2002). Education for sustainability as a frame of mind. *Environmental Education Research*, 8, 9 - 20.
- Capra, F. (2002). *Hidden connections*. New York: Doubleday.
- Huckle, J. (2003). *Education for sustainable development: a briefing paper for the TTA*. London: Teacher Training Agency.
- Kannel – Ray, N.V. (2006). Guiding principles and emerging practices for environmentally sustainable education. *Curriculum and Teaching Dialogues*, 113 - 123.
- Lang, J. (2005). *Education for Sustainability*. EQ Australia. Melbourne VIC: Curriculum Corporation.
- Lovelock, (1988). *The ages of Gaia : A Biography of our Living Earth*. New York: Norton.
- Miller, R. (2000). *Caring for new life*. Brandon: Foundation for Educational Renewal, 91
- Pavlova, M. (2008). Conceptualization of technology education within the paradigm of sustainable development. *International Journal of Technology & Design Education*. Springer: Science and Business Media, 19, 109 – 132.
- Rubene, Z., Geikina, L., & Svence, A. (2008). Implications of totalitarian values in the post – soviet educational space: The theoretical and methodological research basis. In *Changing education in a changing society* (pp. 4-10). Klaipeda: Klaipeda University.
- Sterling, S. (2004). *Sustainable education. Re - visioning learning and change*. Green Books: The Schumacher Society.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2001). *Education for Sustainable Development*.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2002). *Education for Sustainability. From Rio to Johannesburg: lessons learned from a decade of commitment*. Paris: UNESCO.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2003). ‘Framework for the Decade of Education for Sustainable Development’ Paris: UNESCO. Available at <http://unesco.unesco.org/images/0013/00131163epdf> (accessed January 5, 2012)
- Wilber, K. (2001). *A theory of everything*. Boston: Shambhala, 52.
- World Commission on Environment and Development (WCED). *Our Common Future*. England: Oxford University Press, 1987.
- Wright, T. (2006). Feeling green: Linking experiential learning and University environmental education. *Higher Education Perspectives*, 2, 1, 73 - 90.