

ECOCENTRIC WORLDVIEW PARADIGM: THE RECONSTRUCTION OF CONSCIOUSNESS

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Abstract. *The aim of the article is to analyse the kind of knowledge, values and activity changes of the ecological consciousness toward ecocentric ideas, to explain a new ecocentric worldview paradigm which has to be the main view in the modern education philosophy and theory and to motivate the importance of a reconstruction of ecological consciousness in contemporary education. Ecological consciousness is described as “new rationality, real wisdom and knowledge of real human” that means the perception of ecological “me”. It is stated that ecology crisis is the one of thinking where the solution is the normalization of man and nature’s relations and is possible only with the reconstruction of consciousness. The ecology crisis lays the basements of antropocentric consciousness. If we want to change our relations with nature, we should reconstruct our consciousness. The basis of the ecocentric consciousness is the values of holistic philosophy and humanistic psychology. The methods used are comparative analysis, analytic induction and deduction.*

Key words: *ecological ecocentric consciousness, holism, reconstruction, ecocentric values, ecological and environmental education, biocentric global education, ecology crisis.*

Introduction

Over the past 30 years, environmental education, possibly more than any other form of education, has undergone the greatest evolution not only in terms of its goals, theory and principles but also in its very pedagogy. The series of intergovernmental conferences took place in Belgrade (the former Yugoslavia, 1975), Tbilisi (Georgia, 1978), Moscow (the former Soviet Union, 1987), Rio de Janeiro (Brazil, 1992), and Thessaloniki (Greece, 1997) throughout the 1970s, 1980s, and 1990s. These meetings have exclusively focused on environmental education and produced policy statements identifying new goals and guiding principles for environmental learning and teaching

“The goal of environmental education is to develop a world population that is aware of and concerned about the environment and its associated problems and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively towards solutions of current problems and prevent of new ones.

We are at the beginning of a fundamental change of worldview in science, society and education” (Clove, 2003).

And therefore we are asking the key questions such as:

Why should we change our worldview in education? And what should we change?

The object of research is ecological consciousness.

The aim of research is to analyse the kind of knowledge, values and activity changes of the ecological consciousness toward ecocentric ideas, to explain a new ecocentric worldview paradigm which has to be the main view in the modern education philosophy and theory, to motivate the importance of reconstruction of ecological consciousness in contemporary education.

The objectives:

- to describe the definition of ecological consciousness and to distinguish the differences between anthropocentric and ecocentric paradigms;
- to outline the causes and possibilities of the reconstruction of ecological consciousness;

- to formulate the features of contemporary education that determines the reconstruction of ecological consciousness.

Why should we change our worldview in education?

The fact of *ecology crisis* is stated in the environmental, philosophic, pedagogic and cultural aspects in the present-day science. The mainstream values of ecological attitudes, values, and perceptions do not solve the problems of relations between human and nature. In other words, we should understand the ecology crisis as relations between society and nature and the creation of a new behavioural model recognizing human as a creation of nature.

Human being is aware of his/her responsibility toward nature and recognizes the ecology crisis as the one of thinking and behaviour. Such values are conceptualized as *ecocentric consciousness*.

What should we change?

Environmental education should recognize that traditional, localized, or indigenous *knowledge* of many societies is critical as they often locate human well-being within the continuing integrity of the rest of nature. Such knowledge could serve as a model for new *ways of learning* and interact with the rest of nature. Environmental education should be more creative in its practice and use the rest of nature as a teacher. Environmental education should be understood as a lifelong process, actively, critically, and creatively engaging children and the adult population in the daily decisions that affect the biosphere. It requires strengthening public participation in environmental policy and decision making through capacity development for strategic environmental action by using “adult education, on-the-job training, the media and other less formal methods. These notions represent a fundamental transformation in environmental education. They politicize environmental education while simultaneously recognizing people’s physical, emotional, psychological and cultural dependence on and relationship to the rest of nature (Clove, 2003).

Reconstruction (lot. Reconstructio) - *the substantial reform, the new settings*.

The anthropocentric position does not solve the problems of ecology crisis. Only a new concepts and a new awareness of ecology can help to balance the relations between human and nature. Reconstruction of consciousness is the main goal of education. Environmental education had to play a critical role in helping people make more informed personal and political decisions. The education as a process of reconstruction is aimed at education and at changing the system of values, knowledge, activity or behaviour in particular practice.

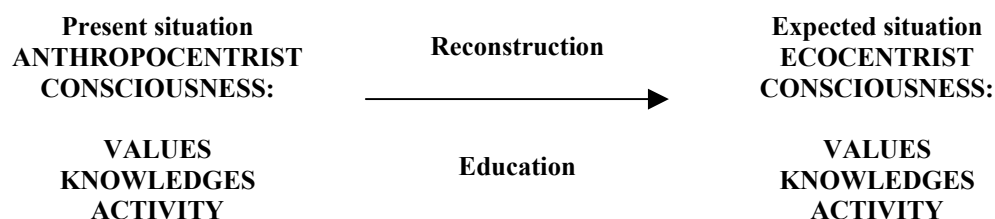


Figure 1. The model of reconstruction.

The definition of ecocentric consciousness

The last decade sociologists showed a significant interest in spreading „ecological consciousness“ as the latter parted from environmental consciousness at the end of the 60`s – the beginning of the 70`s. This movement started as philosophy and became a large dominant environment protection movement. The paradigmatic transformation overtakes the large

directions in the society, evokes deep changes in cultural, economic, political and social institutions and creates new concepts of relations between human, society and nature.

The scientists are grouped in two categories: antropocentric and ecocentric. Both of them analyse the problems of ecological consciousness. *Anthropocentrism* and *ecocentrism* are conceptual systems which approach different systems of value.

There are some ecological characteristics such as „*new modernity*“ (Cristopher, 1999), „*real wisdom*“ (Gavan, 2000), „*new intelligence*“ (Cristopher, 1999) which are legitimated by a new system of value as holism and sustainability.

The environmental scientists are analysing this problem from different points of view. The study of the definition of ecocentric *consciousness* is enlarging by adding some aspects which are *ecological thinking, ecological intelligence*. (Rauckienė, 2001, Capra 1990), *ecological culture, ecological ethics* (Kalenda, 1998).

In trying to better explain ecological consciousness we should distinguish the different aspects of the definition. The consciousness is an upper form of mind which composes **the cognitive elements such as emotional reactions, perception, images, intellection and reflection**. **Ecological ecocentric consciousness** has the same elements which are described by science in the following way:

Table 1. Definitions of ecological consciousness.

Images	“Ecological ecocentric consciousness” is a part of a general image about the relations between human and nature (Rauckienė, 2000).
Knowledge about environment	“Ecological ecocentric consciousness” sometimes means the anxiety about the environmental problems which are conditioned and reasoned by the degradation of environmental knowledge (Kuhn, 2001).
New concept	“Ecological ecocentric consciousness” is the mainstream in the environmental movements. This paradigmatic transformation involves many aspects of the society and made deep change in the cultural, political and economical modern institution which has created a new conception about human and nature relations (Hull, 1999).
Ecological understanding	Scientists are discussing traditional ecological consciousness and understate the environmental problems as technical, and therefore it is difficult to see the roots of the problem. Ecological understanding between individuals, society and nature can solve the problems of natural environment (Kuhn, 2001).
Reflection on ecological “me” in perception of the universe.	“Ecological ecocentric consciousness” shouldn’t be understood by sense of ecological crisis or by general care of environment. “Ecological consciousness” should be more metaphysical, and should explain the perception of human in the universe (Kuhn, 2001).

The principles of ecological consciousness are identical to the principles of humanistic psychology – self – *actualization, awareness, responsibility, and authenticity* can address our environmental crisis through the concepts and practice of empathy, unconditional positive regard, and a wider identification beyond humankind to include the natural world. An ecological – humanistic psychology and worldview include humans as a part of the environment, not separate from it (Kuhn, 2001). The reconstruction urges us to change the mainstream anthropocentric concept to ecocentrism.

Education in terms of ecology crisis

Feature 1

The generalization of educational objects. The interconnection of eco-partners.

The strategy of modern environmental education states that environmental education should be generalized and interconnected from a personal level concern to a public level. The object of ecological consciousness expands from individuality to humanity:

INDIVIDUALITY – COMMUNITY – SOCIETY – NATION – HUMANITY

Successful and sustainable school change requires coherence, integration, diversity, continuous skills development, the creation of collaborative work cultures; multiple foci of change with multi-directional communication flows across the school and community and a broadening of the leadership net include as many teachers, parents, and students as possible (Selby, 2000).

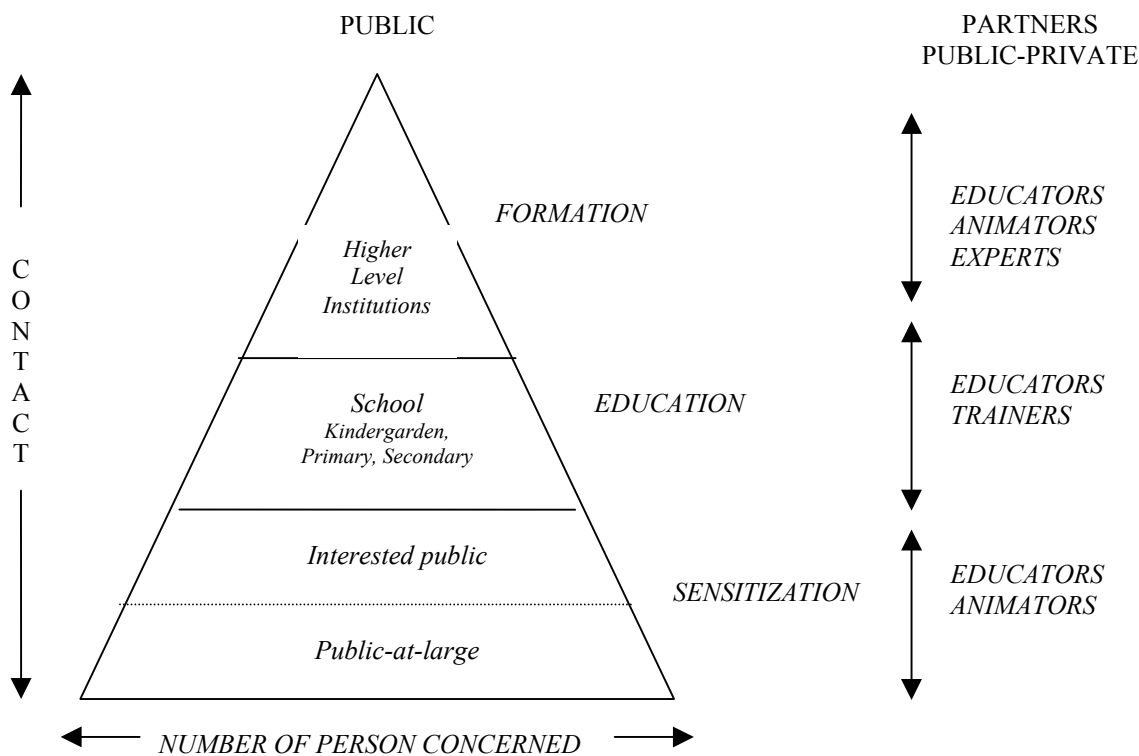


Figure 2. Call and contact levels and partners (Chaineux, Charlier, 1999).

Feature2

The place of ecocentric ecological philosophy in the educational process. Values of nature and life

The ecologists see the ecology crisis as at root a cultural crisis – a direct outcome of the dominant western mechanistic worldview with its foundations in 17th- and 18th- century

scientific notions of separation and domination. The influence of Decartes division of *res cogita* (mind) and *res extensa* (mechanistical extended substances or matter) has led to our locating ourselves out-side and above nature. Dualism (*human/animal, mind/body, masculine/feminine, reason/emotion, spirit/matter*) and inspired hegemonic thinking are replaced in the ecological philosophy by a worldview that perceives reality not as a collection of discrete and isolated entities but as a dynamic relational web, unbroken „wholeness“.

Ecological thinking calls for a shift from anthropocentric (human-centred) philosophy with its build in biospheric inegalitarianism, to a biocentric (life-centred) philosophy. The latter recognizes that we are embedded within the environment, that reverence rather than ruthlessness is due to the natural world, that culture is in the final analysis grounded in nature, that consciousness is within everything, that however special and complex our own form of consciousness, ecosystems and all living beings possess intrinsic value.

The Gaja Theory, which proposes that the Earth is a self-regulated system, offers a holistic vision for science and education and the holistic worldview that is necessary to recover wisdom. Our educational system is based on the mechanistical worldview. Without action, knowledge is useless. How to use knowledge and how to fit it into a greater context of life are the questions that lead to wisdom (Gavan, 2000).

The fragmentation is characteristic of our general thinking and academic disciplines. As a result we have an educational system that alienates us from life in the name of human domination, fragments instead of unifies, overemphasizes success and careers, separates the feeling from intellect and the practical from theoretical.

The radical way to solve ecology crisis is a worldwide reconstruction. The foundations of this reconstruction unfold in the holistic philosophy.

Feature 3

The theory of ecocentric education as biocentric global education

Many researchers, teachers, and practitioners of environmental education have argued that past paradigms of environmental education have tended to be reduced, science focused/obsessed, based on the management and control of nature and human/earth dualisms and devoid of social, political, cultural, or emotional dimensions. Since this narrow framework was unable to bring about the substantial changes in the mental and cultural models that underpin unsustainable practices, *new frameworks, goals, principles, and practices of environmental education were needed* (Clover, 2003).

The most useful environmental education would challenge notions of human separation from and domination over the rest of nature by assisting to instil a stronger ethic of care, cooperation, and partnership building. It would include the less tangible dimensions of human/earth relations such as the emotional, inner, spiritual, or inscape dimensions.

Environmental education should also focus on the principle of sustainability by engaging students in a critical analysis of capitalism, development, and industrialization and cut across disciplines by stressing the interrelationship of environmental issues with all subjects.

Biocentric global education would embrace the notion of “relational holism” in which relationship is primary and takes place between phenomena that are themselves processes rather than static components. Embracing such a radical reading of interconnectedness – captured in terminology such as enfoldedness, embeddedness and interpenetration – has profound practical consequences for the agenda and structure of learning communities (Selby, 2000).

Table 2. The characteristics of biocentric global education.

THE CHARACTERISTICS OF THE GLOBAL BIOCENTRIC EDUCATION AS THE POSSIBILITIES TO CHANGE CONSCIENCE
<p>→ <u>GLOBAL BIOCENTRIC EDUCATION</u></p> <ul style="list-style-type: none"> → HOLISTIC PHILOSOPHY <ul style="list-style-type: none"> → THE CRITICS OF WESTERN MECHANISTIC WORLDVIEW → THE RECOGNITION OF ORIENTALISTIC NATURISTIC WORLDVIEW → HUMANISTIC PSYCHOLOGY <ul style="list-style-type: none"> → SELF-ACTUALIZATION → UNCONDITIONAL POSITIVE REGARD → RESPONSIBILITY → INTERDISCIPLINARITY, MULTIDISCIPLINARITY AND PLURIDISCIPLINARITY (INTEGRATED KNOWLEDGE) AND SOCIAL CONSTRUCTIVE KNOWLEDGE <ul style="list-style-type: none"> → ECOLOGICAL CONTEXT IN THE SUBJECTS → ART AND SCIENCE INTEGRATION → THE OBJECTS OF STUDIES FROM LOCAL TO PLANETARY, FROM MAN TO HUMANITY → ECOLOGY OF LEARNING AND TEACHING (METHODS) <ul style="list-style-type: none"> → FORMAL AND INFORMAL METHODS → METHODS TO DEVELOP THE INTELLECT → METHODS TO DEVELOP THE INTUITION → THE ECOLOGICAL MODEL OF SCHOOL RENEWAL → RECONNECTION OF THE ASPECTS OF PERSONHOOD <ul style="list-style-type: none"> → MULTIPLE INTELLIGENCES: GARDNERS THEORY

Biocentric global education states that the national or inter-national curriculum cannot solve the problems of contemporary environment education. The creation of a new multi-levelled global curriculum within which the local, provincial, bioregional, national, and planetary questions would be perceived of as in dynamic and enfolded relationship.

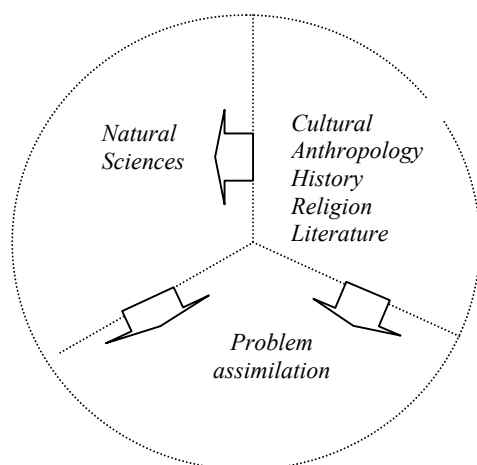


Figure 3. Integrated knowledge (Chaineux M., Charlier R., 1999).

Biocentric global education reconnects the aspects of personhood. Learning experience is more personal, intimate in its encouragement of self-discovery. Disciplines enabling students to

explore their inner ecology, cultivate their attunement to their senses and body rhythms and develop an embodied relationship with the natural world – contemplative and therapeutic art dance, breathing exercises, yoga, meditation – would become valued features of the learning process. Biocentric global education also speaks that knowledge is received and internalized in myriad ways. It is a feature of the mechanistic mindset pointing out that a reason is valued above intuition, thought above feeling, objectivity above subjectivity. An outcome of prevailing mechanism has been that learning has continued to be epistemologically underdimensioned (confined to rational, analytical means of knowing) and learning approaches confined to a narrow range. The rationalistic and linear modes of knowing are “ecologically dysfunctional“. Biocentric global education recovers the holistic modes of knowing that are environmentally mindful and responsive. Learning of ways of knowing within traditional and indigenous communities is a vital element in the recovery of earth – sensitive learning, as is the development of sensual learning approaches involving direct engagement with nature. The emotion, subjectivity, caring, and intuition are the principle ways of knowing.

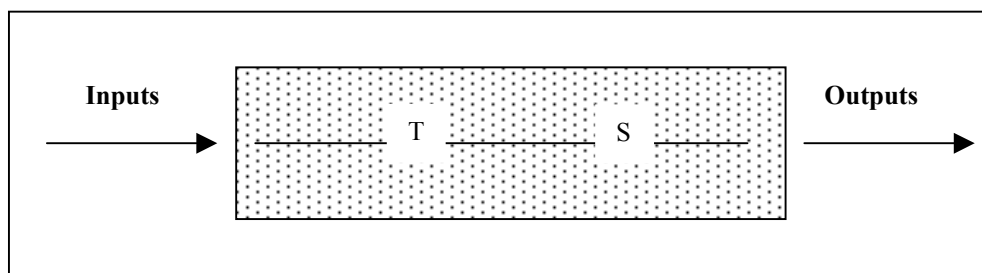


Figure 4. The linear model of school reform: inputs, outputs, and teachers working on the learning of student inside the classroom box (Goodlad I. J., 2000).

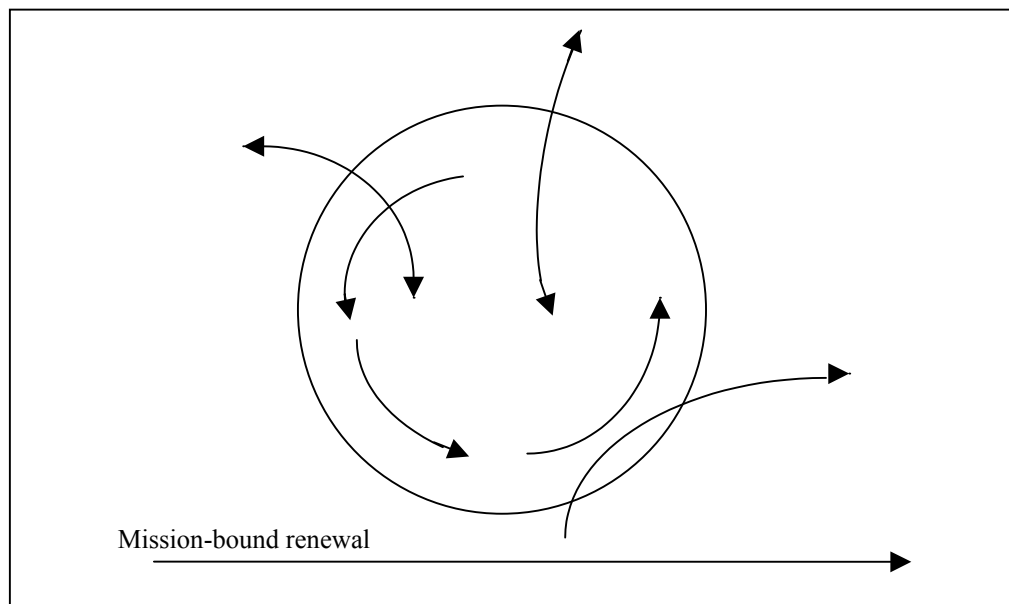


Figure 5. The ecological model of school renewal (Goodlad I. J., 2000).

Findings

The definition of ecocentric ecological consciousness with new features is complex. Ecological consciousness is defined as ecological ecocentric consciousness. From a

philosophical point of view there are some characteristics of ecological consciousness such as „*new modernity*“, „*real wisdom*“, „*new intelligence*“ which are legitimated by the new system of value as holism and sustainability. The psychological aspect is presented by „*the images*“, „*knowledge about environment*“, „*new concept*“, „*ecological understanding*“, „*the reflection on the ecological “me” in the perception of the universe*“ and explains ecological consciousness as an upper form of mind which composes the cognitive elements such as emotional reactions, perception, images, intellection and reflection. The educological aspect of ecological consciousness is enlarged by *ecological thinking, ecological culture, ecological intelligence, ecological ethics*.

The ecology crisis lays the basements of antropocentric consciousness. If we want to change our relations with nature, we should reconstruct our consciousness. The basis of the ecocentric consciousness is the value of holistic philosophy and humanistic psychology and the fundamental ecological principles including *strength in diversity; continuous movement and fluctuations; energy flows, cycles, and undulations; countless forms of partnership; co-evolution through the processes of creation and mutual adaptation; the tensile dynamic between the assertive and integrative tendencies of any organism, sub-group, or sub-system*.

The main goal of education is to formulate new goals, principles, objectives and practice that could reconstruct or educate consciousness to a new level. Holistic education, particularly biocentric global education containing such features as interdisciplinarity and integrated knowledge, individuality and appreciation of a student like a human, the participation of all institutions in the process of education, morality and ecologic methods of learning is a start of the fundamental changes of worldview in science, society and education.

References

- Capra, F. (1990). Rebuilding our thinking. *Earth Island Journal*, 5, 3, 46.
- Chaineux, M. C, Charlier R.H. (1999). Strategies in environmental education. *International Journal Of Environmental Studies*, 56, 889-905.
- Christopher, M. (1999). An exploration of the reflex in reflexive modernity. *Organization and environment*, 12, 4, 357-400.
- Clover, D. E. (2003). Educating for a Change: Reconceptualizing Formal and/or Nonformal environmental education. *Comparative Education Review*, 44, 2.
- Gavan, C. T. (2000). *In search of wisdom: The Gaia theory and its implications for ecological education*. Prescott college, Digital disertations.
- Goodlad, I. J. (2000). Educational Renewal and the Arts. *Arts Education Policy Review*, 4, 101.
- Guogh, S., Scott W., Stables A. (2000). Beyond O’Riordan: Anthropocentrism and Ecocentrism. *International Research in Geographical and Environmental Education*, 9,1.
- Hull, Z. (1999). Social ecology and the universalist philosophy of ecology. *Dialogue & Universalism*, 9, 9/10, 27.
- Kalenda, Č. (1998). *Ekologinės etikos tapimas*. Vilnius.
- Kuhn, James L. (2001). Toward an ecological humanistic psychology. *Journal of Humanistic Psychology*, 41, 2, 9.
- Morris, M. (2002). Ecological consciousness and curriculum. *Journal of Curriculum Studies*,
- Rauckienė, A. (2000). The ecological Education and the Teacher Training in the Situation of Ecological Crisis. *ATEE Spring University: Today's Reforms for Tomorrow's Schools*, 194-198.
- Selby, D. A. (2000). Darker Shade of Green: The Importance of Ecological Thinking in Global Education and School Reform. *Theory Into Practice*, 39, 2, 88.

Резюме

**ПАРАДИГМА ЭКОЦЕНТРИЧЕСКОГО МИРОВОЗЗРЕНИЯ:
РЕКОНСТРУКЦИЯ СОЗНАНИЯ**

Раса Гаге, Алона Рауцкене

В статье анализируется, какие знания, значения и деятельность способствуют изменению сознания в плане овладения экоцентрическими идеями, объясняется новая парадигма экоцентрического мировоззрения, которое является основой теории и философии образования. Акцентируется важность реконструкции сознания в современном образовании.

Экологическое сознание определяется как “новое современное”, “реальная мудрость”, “новые сведения”, “знания об окружающей среде”, “новое сознание”, “экологическое проникновение”, “восприятие Вселенной через призму собственного экологического “я”!

Антропоцентрическое сознание является причиной экологического кризиса. Если мы хотим изменить наши отношения с природой, мы должны реконструировать наше сознание. Основой экоцентрического сознания является понимание философии холизма и гуманистической психологии.

Холистическое образование, особенно биоцентрическое глобальное образование с такими его характеристиками как интегрированные знания, учет индивидуальности учащегося как интеллектуальной личности с развитой интуицией, участие всех институций в процессе образования, сочетание нравственных и экологических методов обучения является основой, которая способствует реконструкции общественного сознания в парадигме экоцентрического мировоззрения.

Ключевые слова: экологическое экоцентрическое сознание, холизм, реконструкция, экологическое образование, биоцентрическое глобальное образование.

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