

EDUCATIONAL INNOVATION: EDUCATION FOR SUSTAINABLE DEVELOPMENT

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Abstract

Harmonization of Higher Education of Ukraine to the requirements of the European Higher Education at the present stage of social development involves the application of innovative achievements in education and science to form a new generation that will think and will work in new ways. Therefore main attention focuses on personality development, and its cultural and communicative training, capable of acquiring and developing knowledge by itself, develop information and social skills.

Major trends and criteria for higher education in international and regional aspects are determined by Golovko V.A., Hrymblat S.O., innovative research methods processes are determined by Kurlyand Z.N. Bordovska N.V. and Rean A.A. distinguished different types of innovations by the assessment criteria: the scale of change in higher education, the depth of change in higher education, degree of novelty in time. State Programme of Education Development of Ukraine for 2005-2010 years defined the task of modern education to support innovative development of higher education and its proactive nature, improving the ways of national consciousness, patriotic feelings and principles of modern aesthetic, moral and ethical, environmental and valeological training and education.

Memorandum of Understanding between the National Agricultural University (Ukraine) and Wageningen University (The Netherlands) signed on the 19th of October 2006 defined directions for the further cooperation. It is aimed at the development of joint research projects and setting up double-degree Master programmes (MSc) for students of both universities. In particular, it will focus on the following specialisations: 'Environmental Quality and System Analysis', 'Environmental Management and Policy', 'Environmental Technologies and Environmental Safety', 'Geo-Information Monitoring', 'Nature Conservation and Ecological Network Management' for the speciality 8.070801 'Ecology and Environmental Protection'.

In order to adapt Ukrainian national master programmes to European standards an educational experiment was launched by The Decree of Ministry of Education and Science (Ukraine) from 19.10.2006 in NAU since 2007 academic year. According to the experiment settings duration of Master Programme in NUBiP of Ukraine at the speciality 8.070801 'Ecology and Environmental Protection' differs depending on the Degree of candidates. Thus, for students with Specialist or Master Diploma in other speciality duration of Master Programme is 1 year, while for students with Bachelor Diploma it is 1.5 year.

After reviewing the experience of scientists involved in teaching innovation, it was formed and developed the structural logic scheme of environmental education permanence for sustainable development, suggested the mechanism of encouraging, implementation, systematization of educational system innovation for sustainable development.

Keywords: Pedagogical innovation, program, sustainable development.

Harmonization of higher education of Ukraine according to the requirements of European space higher education on the modern stage of development of the society foresees applying the innovative achievements of education and science for shaping new generation who thinks and works in the new way. Therefore the basic attention is paid on development of personality, its cultural and communicative preparedness, ability to obtain and develop knowledge independently, form informational and social skills[3].

Golovko V.O., Grimblat S.O. and others [5,p.8-9] determine basic tendencies and criteria of higher education in international and regional aspects:

1. The system of higher education develops dynamically, is characterized by permanence, diversification of structure and forms of organization of educational process, by informatization of the society.
2. Favorable environment of higher education, induces to the exchange of knowledge, innovative scientifically-experimental and experimentally-constructional developments and reflects socio-political, morally-ethical tendencies at the national, regional and international level s.
3. Acquiring of higher education of irrevocably acquires mass character, without material, age, physical, religious, national limitations and characterized with its availability, internationalness for capable, not selected with possibility of getting it throughout life.

Distribution and introduction of innovations is in the system of education assisted development of a new direction of pedagogical innovation, that engulfs studying of philosophical, psychological, psycho-social questions, informative and pedagogical providing of innovative processes, directed on sloving problems of modern stage of development of education and personality. The subject of special scientifically grounded direction are significant and systematic organizing innovative processes. The leading methods of researches of innovative processes of Kurlyand Z.N. and others determine:

- methods (of analysis, synthesis, induction, deductions, logical methods) are directed on theoretical generalization, establishment and formulation of laws of conformity;
- methods (supervision, questionnaire, interview, experiment, statistical treatment, experiment) of empiric and mathematical research, researches directed on an object;
- structure-functional (ranging of compounds);
- comparative (establishment of efficiency);
- structurally genetic (analysis of changes);
- partial (axiomatic, modernizational, paradigmatical) [4,p.181-182].

In the system of higher education allocate different types of innovations by the criteria of estimation suggested by Bordovskoyu N.V., Rean A.A. [1,p.129]:

- a scale of transformations to the INSTITUTE of higher education is innovations, which are entered at the department, faculty level (with the changes of curricula and programs) → transformation of structure of management, international cooperation, forms of organization (educational and research work of students, educational technologies) → innovations which engulf the component systems of education
- a depth of transformations at the INSTITUTE of higher education- an innovation rationalization (with the changes of structure of INSTITUTE of higher education) → combined transformations (structure and maintenance of the system of education in the INSTITUTE of higher education) → radical changes (structure-, that have different sourcing and form of studies of students)
- a degree of newness in time - an innovation replaceable (on new), halted (activity of structural subdivisions), openings (new specialties, technologies, subsections), retroinnovations (renewals are historical, traditional, development of scientific schools).

Innovative activity of teacher of higher school is determined by the criteria of pedagogical innovations:

- by the level of new experience – absolute, locally absolute, conditional, subjective.
- by an optimum, which is instrumental in achievement of excellent results at the least expenses of time, physical and mental forces.
- by effectiveness and efficiency, that demonstrate certain firmness of positive results in teacher's activity.
- by creative realization and mass distribution in structural subdivisions of INSTITUTE of higher [2,p.112]

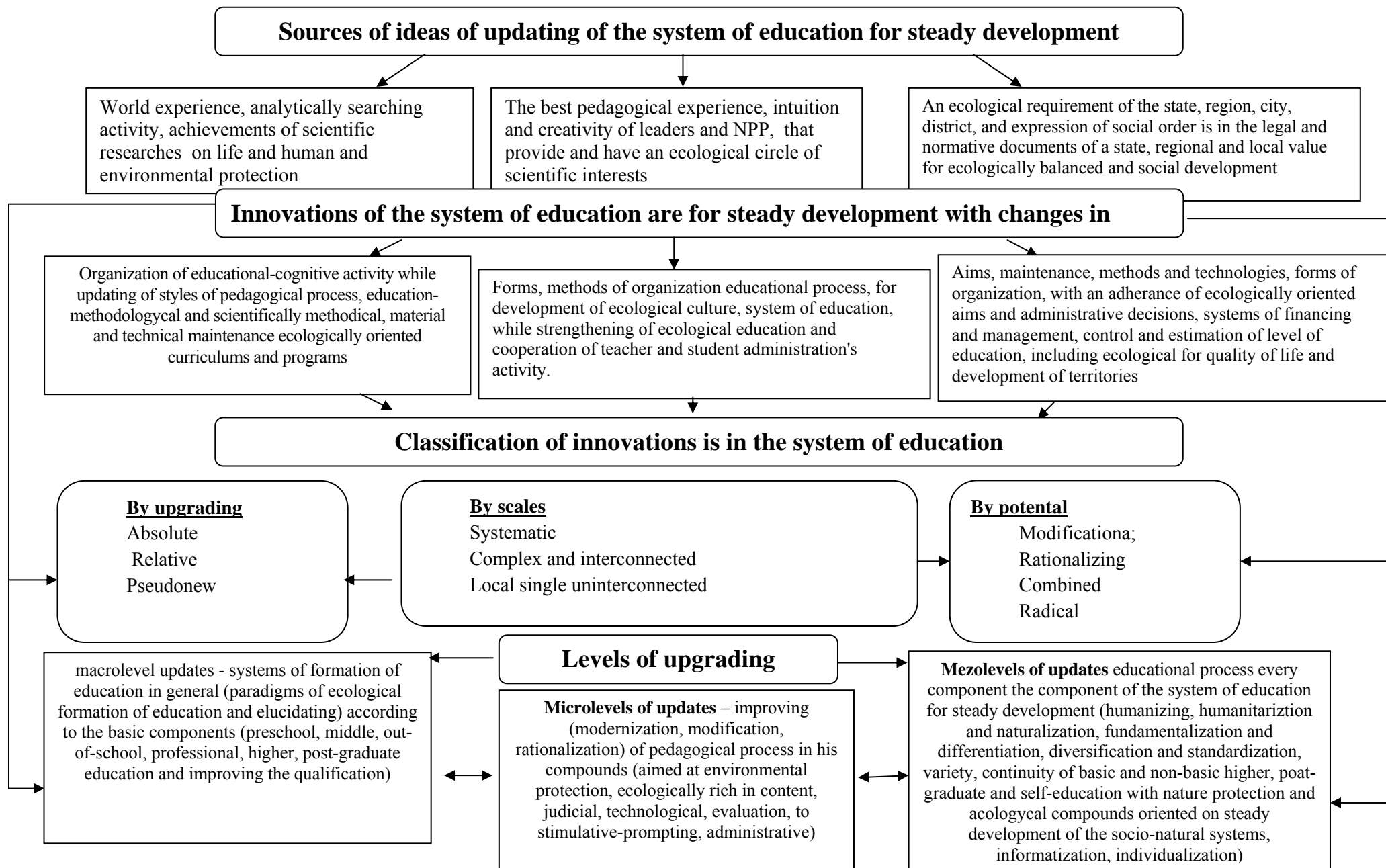
In the «Government program of development of formation of Ukraine on 2005-2010r.r.» are determined the following tasks of management modern education:

1. To optimize management and organizational structures of control system;
2. To form creative, spiritually rich, personality taking into account its needs, interests, capabilities and desires. A main value of modern education is individuality;
3. To improve the ways of formation of national self-consciousness, patriotic feelings and modern principles of aesthetically beautiful, morally--ethical, ecological and valeological studies and education.
4. To provide innovative development of higher education and its outstrip character;
5. To improve management mechanisms (from the Department of education and science of Ukraine to the students' audience) [6,p.133].

One of the main tools of forming of ecological consciousness of our contemporary has to become the ecologization of the system of education and ecological education.

Under ecological education we understand the continuous process of studies, directed on mastering of the systematized knowledge, abilities and skills, which provide the proper attitude towards an environment, forming of general ecological culture [7].

Analysing experience of scientists who dealt with pedagogical innovatization the sources of ideas of updating of the system of education were formed for steady development, innovations of the system of education for steady development with changes, classification of innovations in the system of education, levels of updating of the system of education for steady development and the logical chart of permanence of the system of ecological education is developed structurally for steady development, the mechanism of prompting, realization, systematization of innovations of the system of education, is offered for permanent development (chart 1).



Structurally logical chart of permanence of ecologization of the system of education for steady development 1. A mechanism of prompting, realization, systematization of innovations of the system of education, is for permanent development*
*** Own development**

A basic task of the ecologization of education for steady development is creation of the state and non-state systems of continuous education with the purpose of development of ecological culture and basic scientific knowledge of population, scientific ecological world view and professional skills of rational nature usage, saving of resources and ecological safety [7].

For this purpose in the spheres of educating the realization of the tasks has to be done by the following ways:

1. Introduction of general component formation of different levels;
2. Strengthening of socially-humanitarian ecologically-elucidative activity;
3. A leadthrough of replacement of politically-economical approaches of nature usage on social-and-ecological on the basis of economy of nature usage ;
4. Establishment of preparation and retraining scientifically pedagogical workers on questions ecological education for steady development;
5. Development of regional and local ecological conceptions and programs of forming of ecological culture and elucidating
6. Bringing in organizations of all levels from state to public;
7. Development of educational normative requirements of oriented is to steady development of the socio-natural systems;
8. Increasing of informatization of spheres of nature protection legislation, rational nature usage, environmental; protection, ecological audit, and by introduction of mechanism of ecological management for steady development.

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