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# TRENDS OF SECONDARY EDUCATION DEVELOPMENT IN THE USA, GREAT BRITAIN AND UKRAINE THROUGH REFORMS AND INNOVATIONS

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**Abstract.** *In this article, the author discovers some aspects of the transformations of secondary education in the United States and Great Britain through the prism of innovations and reforms. In the article, the generalized classification of the educational reforms (additional reforms, external reforms, regulatory reforms structural reforms) is presented. Based on the findings of the well-known American and British scholars on the problem of secondary education development the author highlighted their conclusions about the efficiency of the educational reforms. The paper highlights the link between innovations and reforms in secondary education in the USA and British education systems. The author highlighted the view of the European Union on the role of key competencies for innovative education, development of a personality. The conclusion is made that the idea of key competences in Europe is synchronised with the idea of basic/life skills in USA and in the world. The author analyses the essence of the transformational processes taking place in the Ukrainian school education, in particular, the implementation of the school reform “New Ukrainian School”. The author characterises the “New Ukrainian School” concept that comprises the following basic ideas, i.e. new content of education, based on key competencies necessary for successful self-realization of a child in the society; pedagogy, based on a partnership between a student, a teacher and parents; motivated teacher who has the freedom of creativity and develops professionally; orientation to the needs of a student in the educational process; values-oriented education; a new school structure allowing students to master the new content well and gain key competence for life; decentralisation and effective management providing real autonomy of a school. In the article, the list of key competencies identified by the Ukrainian legislation as basic for the development of a successful personality is characterised.*

**Key words:** *trend; secondary education; reform; innovation; key competence.*

## INTRODUCTION. PROBLEM STATEMENT

Globalisation transforms all spheres of our world, placing new demands on the organization of education. At the same time, the modern system of education in all countries was designed in a different era (nearly 100 years ago) and structured for a different society and economy.

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According to the American scholars Stuart Butler, Judy Pepler, Jennifer Humke, Robert Sherman, Lily Eskelsen, Rendi Weingarten the system can no longer deliver on the purpose to which we are committed, nor can it provide the individual and public benefits that are sought. As Robert Sherman states “it’s an inherited system, which is based on a standardized, “factory” model where teachers are given an age-group cohort of children at the beginning of each school year, a standardized curriculum, and a matching set of assessments. Despite teachers’ best efforts to individualize along lines of difference, opportunities to tailor the content, pace, and method of instruction are limited. Students are expected to work with their assigned material and move along with their age cohort as the years pass. Grading and other assessment tools are designed primarily to assess the results of learning, rather than to improve learning as it happens”. According to an Organization for Economic Cooperation and Development (OECD) report, “the pressure to increase equity and improve educational outcomes for students is growing around the world” (Vieluf, Kaplan, Klieme & Bayer, 2012: p. 3).

### LITERATURE REVIEW

The problem of innovative educational reforms is analyzed in the works of A. Velaan, L. Verd-Prud, C. Green, B. Levin, C. O’Connell, R. Kurt-Chey, D. Yang, etc. They state that this issue requires further systematic study and adaptation of the main findings to the realities of the national education in each country.

Analysing the issue of innovations in education sector, P. Serdyukov identifies the barriers to innovations and outlines potential directions for their effective implementation in the USA. In his article “Innovation in education: what works, what doesn’t, and what to do about it?” he outlines that “education, being a social institution serving the needs of society, is indispensable for society to survive and thrive. It should be not only comprehensive, sustainable, and superb, but must continuously evolve to meet the challenges of the fast-changing and unpredictable globalized world. Lack of innovation can have profound economic and social repercussions”.

The works of the following scholars are dedicated to various aspects of innovations and reforms in education:

- A. Hargreaves “Teaching in the Knowledge Society: Education in the Age of Insecurity” (2003); A. Hargreaves and D. Sirley (2009) “The Fourth Way: The Inspiring Future for Educational Change”;
- M. Fullan “The New Meaning of Educational Change” (2007), “All Systems Go: The Change Imperative for Whole System Reform” (2010), “Stratosphere: Integrating Technology, Pedagogy, and Change Knowledge” (2012);
- Yong Zhao, “World class learners” (2012);
- P. Sahlberg “FinnishED Leadership: Four Big, Inexpensive Ideas to Transform Education” (2017), “Finnish Lessons: What Can the World Learn from Educational Change in Finland?” (2011);
- T. Wagner “Most Likely to Succeed: Preparing Our Kids for the Innovation Era” (2016), “Creating Innovators: The Making of Young People Who Will Change the World” (2015),
- M. Csikszentmihalyi “All about flow and positive psychology” (2013), and
- K. Robinson “Creative Schools: The Grassroots Revolution That’s Transforming Education” (2015).

Such Ukrainian scholars as N. Avshenyuk, L. Berezivskaya, K. Korsak, N. Lavrychenko, O. Lokshyna, O. Matvienko, L. Pukhovskaya, O. Ogienko, O. Savchenko, A. Sbrueva, A. Vasilyuk and others conducted in-depth and qualitatively analysis of transformations of the past and present day education systems abroas in comparison with Ukraine. They reveal the sources of innovations, the challenges that determine the directions of education development.

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## METHODOLOGY

The conducted research is a qualitative one. The applied method is the analysis, i.e. literature analysis (studies of the Ukrainian and foreign scholars), documentary analysis (official/strategic documents on education/education development). Besides, the interpretative method was used to understand the essence of transformations and innovations in education, its trends and results. The method of generalisation has provided an opportunity to present the holistic picture of the reforms and transformations in education.

## MAIN RESULTS

The American scientist D. Plank proposed the following generalized classification of the educational reforms:

- additional reforms that require the attraction of funds and fully funded by a state;
- external reforms, as well as additional ones, do not affect the organizational character of the school's educational process. The last one concerns the process of enrollment of teachers to school and the release of students from the school.
- regulatory reform is aimed at raising the level of academic achievement of students. Reforms of this type are widely used in modern schools.
- structural reform can become more radical as it requires changes in the structure and management of the school. For example, determining pay for teachers according to pupils' achievements, increasing control and responsibility of teachers, introducing more accurate report procedures.

The American scholars A. A. Glatthorn and J. M. Jailall highlight the other side of the reforms, noting that educational content reforms are aimed not only at updating and modernizing the educational process, but also in a significant way on the activities of teachers and students (A. Glatthorn & J. Jailall, 2015).

The works of such American scholars as A. Velaan, L. Verd-Prud, C. Green, B. Levin, C. Connell, R. Kurt-Chey, D. Yang note that educational reform is a program of changes initiated by the state. It is aimed at modernizing education, determines educational changes and formulates a strategy for raising its level, implements deep, systematic, stable structural and organizational changes systems of public education. Such reforms not only specify the future educational perspectives, but also help eliminate the problems identified in educational development, through the implementation of educational innovations. C. Green, R. Kurt-Chey emphasize that the result of educational reforms should be a new way of solving public problems, and its main means – new educational proposals, innovative activities. Thus, educational reforms are a manifestation of an innovative strategy of social development, the element of the strategy of innovative learning. Innovative learning is a new, alternative to a traditional, approach to knowledge acquisition; process and result of educational and educational activities that stimulate innovative changes in society.

As the British scholar J. Lowry states: “In the knowledge economy, memorization of facts and procedures is not enough for success. Educated workers need a conceptual understanding of complex concepts, and the ability to work with them creatively to generate new ideas, new theories, new products, and new knowledge. They need to be able critically to evaluate what they read, be able to express themselves clearly both verbally and in writing, and understand scientific and mathematical thinking. They need to learn integrated and usable knowledge, rather than the sets of compartmentalised and de-contextualised facts. They need to be able to take responsibility for their own continuing, life-long learning” (J. Lowry, 2015).

Innovative learning and training focuses on the formation of a person's social and adaptive

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readiness due to the development of abilities for creativity, various forms of thinking, ability to co-operate. Specific features of innovative education are openness to the future, the ability to foresee based on constant reevaluation of values, focus on constructive actions in new situations, which is ensured through the development and implementation of educational innovations.

The Ukrainian researcher O. Hrytsayev defines educational reforms as changes in the system of education, which, firstly, reflect education policy of the government, and secondly, are considered as a concept of the government and are transformed from the state of ideas and proposals into normative legal acts, and thirdly, have strategic intentions.

Innovation in education can appear as a new pedagogic theory, methodological approach, teaching technique, instructional tool, learning process or institutional structure that, when implemented, produces a significant change in teaching and learning, which leads to better student learning. Therefore, innovations in education are intended to raise productivity and efficiency of learning and improve learning quality. Educational innovations emerge in various areas and in many forms. According to the US Office of Education, "There are innovations in the way education systems are organized and managed, exemplified by charter schools or school accountability systems. There are innovations in instructional techniques or delivery systems, such as the use of new technologies in the classroom. There are innovations in the way teachers are recruited, and prepared, and compensated. The list goes on." (US Department of Education). According to P. Serdyukov "innovation can be directed toward progress in one, several, or all aspects of the educational system: theory and practice, curriculum, teaching and learning, policy, technology, institutions and administration, institutional culture, and teacher education. It can be applied in any aspect of education that can make a positive impact on learning and learners. All innovations are ultimately directed at changing qualitative and/or quantitative factors of learning outcomes. The qualitative factors are better knowledge, more skills that are effective, important competencies, character development, values, dispositions, effective job placement, and job performance. The quantitative factors are: improved learning parameters such as test results, volume of information learned, amount of skills or competencies developed, college enrollment numbers, measured student performance, retention, attrition, graduation rate, and number of students in class, cost, and time efficiency."

Thus, the following American educational strategies are based on the results of the introduction of innovative training projects: "Longer School Day or School Year", "After-School Tutoring", "Smaller Class Sizes", "Improved Teacher Quality", "Improved Training", "Higher Credential Standards", "Internet and Computer Access in Schools", "English-Only vs. Bilingual Education", "Content of Curriculum Standards and Textbooks", "Mainstreaming special Education Students", Accelerated Schools, Center for Effective Schools, Community for Learning, The Learning Network, Talent Development High School with Career Academies, School Development Program, Modern Red School House, Direct Instruction model, Different Ways of Knowing, etc.

According to OECD, the list of the top five U.S. "innovations in educational practice" include:

- 1) more observation and description in secondary school science lessons;
- 2) more individualized reading instruction in primary school classrooms;
- 3) more use of answer explanation in primary mathematics;
- 4) more relating of primary school lessons to everyday life; and
- 5) more text interpretation in primary lessons.

"Innovation in organizational policy and practice" included mostly different aspects of student assessment and testing. Good innovation sometimes means doing less of something in order to make time for experimentation with new pedagogical strategies.

Key competences are innovations that direct the development of education of the present

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day Europe. In 2006 the, European Union identified eight key competencies that should be formed through education. Each individual needs these eight competences for personal development and development, active citizenship, social inclusion and employment. In 2018, the renewed list of eight key competences was adopted by the Recommendation of the Council of the European Union. These are the following competences: Literacy competence, Multilingual competence, Mathematical competence and competence in science, technology and engineering, Digital competence, Personal, social and learning to learn competence, Citizenship competence, Entrepreneurship competence, Cultural awareness and expression competence.

The idea of key competences in Europe is synchronised with the idea of basic/life skills in USA and the world. The American Partnership for Skills for the 21<sup>st</sup> Century (that is a coalition of 20 states and 33 corporate partners) supports an integrated approach to curriculum and training. It covers the following categories: awareness in world problems, financial, economic, business and entrepreneurial literacy, public literacy, medical literacy, environmental literacy, ability to study, creativity, critical thinking and ability to solve problems, communication and cooperation, life and professional skills, flexibility and ability to adapt to change, initiative and self-regulation, social and intercultural skills, productivity and consciousness, leadership and responsibility. Students learn more about material and understand how to apply it in practice when a teacher performs the role of a “mentor next” rather than a “sage on the stage”. Good teachers are the core of good schools. Performing different roles, they achieve three main goals: inspiration. They inspire students with their love of the subject and encourage them to reach heights; confidence. They help students acquire skills and deepen the knowledge that makes them self-confident, independent, who will further improve the skills; creativity. They give children the opportunity to experiment, explore, ask questions and develop skills and a tendency to non-standard thinking (Kaplan, 2012).

The concept of alternative education introduces an effective method of restructuring American and British education, reserving innovation processes, disseminating innovations that help change education into a development mode. The alternative education has significantly influenced the formation of a system of co-administration in American education with an orientation towards a single team of teachers, students, parents, and the use of flexible learning technologies. The alternative secondary education of the US in the second half of the twentieth century, focusing on the formation of an active individual of a democratic country, practically contributed to attracting a significant part of the youth outside the traditional school into social transformation activities.

Variability of alternative education has greatly transformed state public schools in both countries, increasing their individualization of education; changed the possibilities of education in urban areas, creating a large number of “magnetic schools” and alternative programs; contributed to the maintenance of problem children in school, has provided wide selection of opportunities for gifted and talented children. An alternative secondary education, which solves most of its marginal tasks, by its very existence, provokes the state system to the development and improvement.

First, the selection of students, which became widespread when a large number of elite schools appeared, led to the stratification of knowledge by status, secondly, the appearance of paid education also fixed inequality in access to such schools, which did not guarantee the quality of knowledge. In order to eliminate the contradictions that cannot be avoided with the advent of innovations in the field of education, it is necessary know objectively the demands of different sections of the population regarding certain knowledge. This is confirmed by the American experience. Reforming of education stops being just a narrow matter.

The alternative secondary education also proved that it is not a collection of marginal pedagogical innovations and small pilot experiments, but is an avant-garde movement, the

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largest long-term secondary education sector that used the legalized strategy for the emergence of new, non-traditional schools, introducing new choices. (Robinson, 2016).

The method of “active learning” through exciting life stories, instead of unrealistic examples from the textbook is one of the most popular topics among educators who master innovation online, communicating in various chat social networks. By this method, the teacher first introduces the students to a certain phenomenon, describes the event – the main thing is that the plot encourages the audience to find answers, to identify the causes the matter. The story that students study must meet certain requirements: deal with science, be understandable to the students to make them interested, be comprehensive with a wide range of related topics so that the answer to it does not appear in the first link from Google search, the search of the answer should take approximately 2 months of study (Serdyukov, 2016).

The personalised learning is a modern British trend in alternative education. This emerging idea is that systems capable of achieving universally high standards are those that can personalise the programme of learning and progression offered to the needs and motivations of each learner. Personalisation can mean adopting a more holistic, person-centred approach to learner development, as well as more demand-driven, market-friendly approaches to system change. In part, it reflects a change in social climate, driven by the affluence and value change that arise from sustained economic growth.

The following key findings on innovation in education are highlighted in the official paper of the OECD British organization “Measuring Innovation in Education”:

- in education, innovation can take place through either significant changes in the use of a particular educational practice or the emergence of new practices in an educational system;
- contrary to common belief, there is a fair level of innovation in the education sector, both relative to other sectors and in absolute terms;
- within education, innovation intensity is greatest in higher education, with secondary and primary education approximately equal;
- compared to other sectors, knowledge and method innovation is above average in education, product and service innovation is below average, and technology innovation is at the average sectorial level;
- in Europe, higher education stands out in terms of speed of adopting innovation compared to the economy average as well as the rates in primary and secondary education;
- there have been large increases in innovative pedagogic practices across all countries studied for the report in areas such as relating lessons to real life, higher order skills, data and text interpretation and personalisation of teaching;
- in their pedagogic practice, educators have innovated in their use of assessments and in the accessibility and use of support resources for instruction;
- educational organisations have innovated in the areas of special education, creation of professional learning communities for teachers, evaluation and analytics and relationship building with external stakeholders, such as parents (Bayer, 2012).

Having analyzed different sources of information the following British top five innovations in pedagogic practice are distinguished: more observation and description in secondary school science lessons, more self-directed experiments in secondary science lessons, more group work in secondary mathematics classrooms, more relating of lessons to real life in secondary school science; more individualised reading instruction in primary school classrooms.

The strategic task of modern Ukraine is the innovative development of society through the innovative education. The innovative education status is based on the Ukrainian legislation, in particular, on the Law of Ukraine “On Innovation Activity” (2002), the Law of Ukraine “On

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Priority Areas of Innovation Activity in Ukraine” (2003), Regulations on the Procedure for the Implementation of Innovative Educational Activities (2000), other official documents. This task was discussed as well at the Parliamentary hearings “Strategy of innovative development of Ukraine for 2010-2020 under globalization challenges”.

The main characteristic of innovative development of modern education is innovative education that is the cause of the new reform. The idea of the reform involves the introduction of 12-year school education. Primary school will be four years duration as a base period, then a basic secondary school with 5 years duration, which will be called a gymnasium, where 5-6 classes will have their own peculiarities, 7-9 are their own, profile secondary school (three years) – two cycles.

The “New Ukrainian School” concept comprises the following basic ideas:

- new content of education, based on key competencies necessary for successful self-realization of a child in the society;
- pedagogy, based on a partnership between a student, a teacher and parents;
- motivated teacher who has the freedom of creativity and develops professionally;
- orientation to the needs of a student in the educational process;
- values-oriented education;
- a new school structure allowing students to master the new content well and gain key competence for life;
- decentralisation and effective management providing real autonomy of a school.

Formation of the model of innovative development of education in Ukraine needs to change the priorities of reforming this sphere. It should be noted that qualitative modernisation of the national education involves not only the unification of the theory and practice of education innovations and their promotion. It also the appropriate and timely response of state institutions to the results of its effective implementation, the development on this basis of a state strategy for the formation of educational perspectives that would ensure compliance of schools to the requirements of education innovations, and ofcourse – the most urgent requirements of society.

## CONCLUSIONS

Most educators in USA, Great Britain and Ukraine agree that effective educational reforms and innovations are necessities nowadays. The USA and British experience helps to reveal some controversial moments in the development of a modern Ukrainian school.

The analysis of educational initiatives in the USA showed that innovative education is the main object and means of educational reform, which indicates the existence of clear mechanisms of state regulation and support of innovative processes in the educational sphere.

According to the UNESCO (2013), Innovative Teaching and Learning Research project implemented in several countries, ICT and innovations have great potential for supporting innovative education, but are not magic ingredient. When considering ICT and innovations it is important to focus not on flash but on the student learning and 21<sup>st</sup> century skills.

As P. Serdyukov notes: the key to a prosperous, inventive society is a multidimensional approach to revitalising the educational system (structures, tools, and stakeholders) so that it breeds learners’ autonomy, self-efficacy, critical thinking, creativity, and advances a common culture that supports innovative education. Therefore, in order to succeed, innovative education must become a collective matter for all society for which we must generate universal public responsibility.

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