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## **Innovation strategy at the level of municipal government – the case of inclusive education**

**Summary.** Diversity pedagogy and inclusive education – understood as the integration of the representatives of heterogeneous groups into the educational community – is as an example of a very up-to-date, socially important innovation, which requires serious, systematic approach to its generation and diffusion. The paper shows that successful implementation of such innovation depends not only on what part of the population considers it to be socially useful, but also on the consistent and, in the long term perspective, logical steps taken to implement and disseminate the innovation. Such consistency can be accomplished most effectively within the framework of the strategic plan of innovation implementation.

**Key words:** innovation, strategy, strategic plan, inclusive education, teaching diversity, municipal government

### **Introduction**

Today, in the era of the next technological and information revolution, innovation is the necessary condition for the development of society in all its spheres. In order to meet the new challenges of our times, innovation is needed both in technical, economic and humanistic fields.

For a long time the production of knowledge as an innovative process was understood mainly as a phenomenon relating only to technological innovation, to those sectors and industries characterized by high technology, manufacturing new products' samples on the base of research and technological development. But the current practice has undermined such a narrow approach to the effective management of innovation, arguing that there are no sectors, industries or companies which do not use the new knowledge to manufacture products, services or design management practices.

The aim of this paper is to identify the main factors determining the effective implementation of innovation in education by the municipal government. The example innovative concept to undergo analysis will be inclusive education and diversity pedagogy.

The research on innovations and their role in social development is discussed in the works by A. Akhiezer and I. Bestuzhev-Lada, V. Kelly, O. Knyazeva, N. Kondratyev, B. Kretov, N. Lapin, V. Lukov, A. Prigogine, B. Sazonov, A. Fonotov. The general features of innovative processes in the late 20th century were discovered by N. Ivanova. A significant contribution to the study of the essence of innovation and the ways of accel-

erating innovation dissemination in Ukraine and worldwide were made by L. Antoniuk, M. Haman, O. Datsiy, A. Kovach, A. Poruchnyk, V. Savchuk and others. The studies by A. Gordienko, V. Hromeko, P. Zavlin, A. Ipatov, G. Krayukhin, L. Kulagin, A. Kuteinikov, A. Lamanov and A. Medvedev are dedicated to economic aspects of innovation. Innovation in education, innovative methods of teaching and new technologies in education are actively investigated too (e.g. the works of Ukrainian authors: L. Danilenko, G. Nesterenko, V. Hymynets and many others can serve as examples).

Western European researchers are exploring issues of innovation with more technological focus, trying to formulate specific recommendations for innovation application. Some aspects of foreign experience in fostering innovation are investigated by D. Vild, P. Konseysao, P. Kvintas, T. Kono, D. Messi, S. Roper, F. Santos, M. Kheytor and others.

Gary Hamel has identified the main conditions determining long-term benefits of innovation in management:

- innovation is based on a novel principle that challenges management orthodoxy;
- innovation is systemic, encompassing a range of processes and methods;
- innovation is part of an ongoing program of invention, where progress compounds over time<sup>1</sup>.

General guidelines on the application of innovation in personnel management have been formulated by C. Montenegro, who has a considerable experience in senior positions at American universities and other settings. In his works he puts forward the following ideas:

- innovation flourishes in an environment that allows and encourages freedom, creativity and constructive criticism;
- innovation is more likely to appear where there is an opportunity to challenge restrictions and government; where it is allowed to ignore the rules of behavior, where mixing of ideas, people and cultures is encouraged; and where management techniques enable to recognize, identify and learn from mistakes as soon as possible;
- innovation thrives in circumstances where it is recognized that innovation must be opened to physical world and to the world of ideas;
- invention is never certain and must be prepared for uncertain future, so everyone should be ready for uncertainty; innovation will emerge only with understanding that the world is changing rapidly, that it is extremely dynamic and volatile, and that the future is unpredictable<sup>2</sup>.

### Research methods

The paper is based on two empirical studies conducted under the project TEMUPS-543873: the study on the needs of students – members of heterogeneous groups, and the study on teachers' competencies necessary for the successful implementation of

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<sup>1</sup> G. Hamel: The Why, What, and How of Management Innovation, Harvard Business Review 2006, February.

<sup>2</sup> S. Montenegro: Innovation and Philosophy, retrieved from <http://www.project-syndicate.org/commentary/montenegro1> (accessed 05.09.2015).

diversity pedagogy. We also conducted focus group interviews with experts – university scholars and city administration officers as well as professionals in inclusive education. The collected data have then been processed with the use of methods of generalization, synthesis, hypothetical-deductive and system analysis for generalized conclusions in this paper. The method of modelling was used for the draft of a strategic plan for inclusive education development in the city described in this paper.

### **Innovation – concept and models**

Drawing from the essence and content of the concepts “new” and “newness”, “innovation” is an object, process or phenomenon which occurs for the first time, which did not exist in any form earlier, which is used by a small number of people and can positively influence the social life or professional activities.

In her dissertation O. Shyrobokova uses the term “innovatics”, which covers the entire process of creating something new, starting with assumptions and ending with valid results. Therefore innovation cannot be understood outside of the subject-object relationship, which involves the thinking subject – on the one hand – and innovation as an object that appears in the mind – on the other hand. Thus, it is necessary to understand the innovation process as a multi-subject one. Describing another concept – “newness”, the author presents a situation when an individual or a group of individuals who are active, who have developed thinking, imagination, relevant orientation and whose activities are directed at the object – a fragment of reality, of the nature or social life – at which the updating activity is aimed. Therefore, as O. Shyrobokova emphasizes, a person or a group of people is the subject of innovation. But the person as a subject of innovative process is always directly dependent on specific historical and socio-cultural factors and is encouraged by specific social practice<sup>3</sup>.

The interpretation of innovation and mechanisms of its diffusion in society have gradually changed during the history of mankind. The retrospection shows five basic models of the innovative process:

1. The linear model of the innovative process (“the innovation chain”), formed in 1950–1960s. It assumed that innovative process begins with basic research at large research centers and ends with the product marketing and use<sup>4</sup>.

2. The linear-sequential model with emphasises the key role of the market needs and demand to which the R&D react (as the reflection of the “market pressure” hypothesis). In this model, the innovation process is regarded as the transfer of scientific and technological knowledge directly into the sphere of customer satisfaction. The product thus

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<sup>3</sup> О.О. Широбокова Феномен соціальної новації: дис. на здобуття наук. ступеня канд. філос. наук: 09.00.03, ЗНУ, Запоріжжя 2015, р. 82.

<sup>4</sup> В.Г. Зинов Развитие системы профессиональной переподготовки менеджеров для повышения эффективности инновационной деятельности: теория и практика: дисс. на соискание уч. степени д. экон. наук: спец.: 08.00.05, Москва 2005, р. 38.

becomes only a carrier of technology, and the form which it takes is determined only after establishing the connection between technology and the need that it satisfies<sup>5</sup>.

3. The integrated model, which was updated in 1970–1980s<sup>6</sup>, is a combination of the first and second models with the emphasis on the links of technological skills and capabilities with market needs. Innovation in this model is seen as a dynamic process that can be modeled as a combination of two different types of interactions with a feedback. The important role is played by the interaction between an individual enterprise and the wider scientific and technological environment within which the business operates.

4. The interactive model, which originated in the late twentieth century<sup>7</sup>, focuses on the parallel activities of integrated groups and external horizontal and vertical links. Simultaneous work on the idea of several groups of experts, acting in different directions, speeds up the problem solving. G. Kozmetski argues that the process of technological innovation is in some way parallel to work organization as many tasks must be performed at the same time in different places<sup>8</sup>.

5. The model of strategic networks was actively developed and implemented at the beginning of the 21st century, is It is based on the assumption that it is important to develop parallel processes within the enterprise, where some products are already at the production stage, and it is necessary to have a team of researchers and developers working on the next generation of products as well as dealing with evolutionary improvements of the existing products.

### **Strategic networks**

Networking is an effective form of innovation dissemination. It is used by many enterprises through regular contacts with similar companies, professional associations of scientists, through contractual mergers and strategic agreements. Network is a group of firms or specialized units, whose activities are coordinated by market mechanisms rather than command methods. In networks the commands' sequence of a hierarchical structure is substituted by orders for the supply of products and the development of relationships with other companies. The number of the network participants can vary as needed, it can include on an interim basis the organizations with currently needed resources or knowledge.

At the level of the government of a city or region such networks can be formed as coordinating councils, scientific consortia that bring together representatives of universities, research institutions and managers of enterprises.

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<sup>5</sup> Б. Твисс: Управление научно-техническими нововведениями, Экономика, Москва 1989, р.35.

<sup>6</sup> В.Г. Зинов: Развитие системы профессиональной переподготовки менеджеров для повышения эффективности инновационной деятельности: теория и практика: дисс. на соискание уч. степени д. экон. наук: спец.: 08.00.05, Москва 2005, р. 47.

<sup>7</sup> Д. Месси, П. Квинтас, Д. Вилд: Линейная модель инноваций: за и против, [in:] Н.М. Фонштейн (Ed.), Трансфер технологий и эффективная реализация инноваций, АНХ, Москва 1999, с. 158.

<sup>8</sup> G. Kozmetsky: Technology innovative challenge of new age, [in:] Impact: how 1C 2 Institute Research Affects Public Policy and Business Practices, Westport, Connecticut, London 1997, p. 124.

For example, for the implementation of inclusive education in a city or a region such coordinating council may include: local or regional authorities, educational institutions, cultural and sports institutions, medical institutions, national diasporas, associations of people with disabilities, other community organizations, businesses, sponsors etc. The pivotal point of this network, in order to ensure communication and coordination of all participants, can be a university as a centre of production and transfer of new knowledge, with its teachers, administration, community of students, including students with special needs for educational integration (e.g. students with disabilities, foreign students etc.).

Inclusion in education and pedagogy of diversity or heterogeneity is an innovative concept, a modern idea and practice. It assumes common educational environment for students with very different characteristics, and often with vivid differences. These differences require special attention from a teacher, and also special integrative approach to the educational needs of each heterogeneous group of students. Among these groups – there are migrants or migrants' children, persons with disabilities, students from socially disadvantaged families or those trapped in difficult life situations, gifted students etc.

The example of inclusive education as an innovative practice clearly shows that the described network approach to innovation is both rational and promising as well as probably the most effective one for long-term implementation of innovation.

### **Innovation implementation strategy**

It is impossible to implement innovation at a local level, at the level of a single employee, or a single task if there are no favourable conditions at the global level (it means the level of management). Innovation in an enterprise or an organization can be successfully implemented only on the basis of the innovation-type corporate culture, an environment that promotes changes.

In order to successfully implement innovation at the level of a city or a region, in it is not enough just to generate an innovative idea. After that it is necessary to have an understanding of this idea's value at the managerial level. So, after a new idea has been conceived, the first step would be the recognition of its value and usefulness by the municipal government. The second step is not less important. To implement this innovation an action plan is needed and it needs to be a strategic plan, i.e. it should cover a long term perspective.

Strategy is a long-term direction of the development of an organization, a process or a phenomenon. Therefore, the innovation strategy – is a long-term vision of the development of new ideas or new technologies, new concepts, new direction of a company or industry (e.g. a school or educational system).

The strategic plan is a tool applied to make the strategic vision of a particular innovation come true.

Professors O. Graumann and M. Pevzner<sup>9</sup> showed in detail what phases of development and implementation of a strategic plan ensure successful development of inclusive education in the region.

Phase 1 – Initiation of the strategic planning process at the level of a city or a region. This phase involves discussion and producing consistent answers to several main questions: does the region need the strategy of inclusive education development; who is the subject of interaction in this problem solving; what are the main obstacles, strategic problems in the implementation of this innovation? In our view, at this stage we must already have an understanding of the main stakeholders – people and social institutions which are interested in this innovative idea and are able to provide support in the implementation phase of the strategic plan.

Phase 2 – Outlining the goals. It includes defining the strategic objectives: the concept, the primary goal, the main principles, strategically oriented tasks.

Phase 3 – Analysis. Firstly, it means the analysis of the environment: the overviewing of needs and conditions for this innovation implementation. A good tool for this task is SWOT analysis, which involves identifying the strengths, weaknesses, opportunities and threats of the internal environment, which can be addressed by the external environment. Secondly, this phase includes the analysis of the legal framework under which the innovative project is to be implemented (national and international legal acts, regional and municipal regulations etc.). Thirdly, it includes the analysis of the internal capacity to implement this innovation: resource potential of the organizations interested in this idea, readiness and competence of the staff and willingness to cooperate on different levels with a variety of stakeholders.

Phase 4 – Definition of strategic priorities and projects for the development of inclusive education in a region or a city. This phase includes the following steps:

- creation of an inclusive educational environment in educational institutions;
- organization of networking activities for heterogeneous groups of children and/or adults;
- training and professional development of teachers to work in a heterogeneous educational environment;
- monitoring the quality of inclusive education.

Phase 5 – The implementation of the strategy and strategic control. TEMPUS Research Project – results. The subject of inclusive education and diversity pedagogy is becoming increasingly relevant and important. This is evidenced, in particular, by a large number of research projects being implemented, particularly in Ukraine and in the countries of the European Union, including projects financed with grants from various funds. One of such projects – TEMPUS-543873 entitled “Initial and Further Training of Teachers and Educational Managers with Regard to Diversity” (2013–2016) is being

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<sup>9</sup> О. Грауманн, М. Певзнер Стратегический план развития инклюзивного образования в регионе: презентация доклада “Стратегии и развитие инклюзивного образования в регионах” (Хильдесхайм, Германия, 1-5 марта 2015), retrieved from <http://tempus2013-16.novsu.ru/mod/page/view.php?id=8> (accessed 06.09.2015).

implemented in cooperation with other partners at National Pedagogical Dragomanov University.

As part of the TEMPUS project consortium, the project team of Dragomanov University developed a draft of the strategic plan for the development of inclusive education in Kyiv. In this process all of the above described phases were consistently completed. In order to pool expertise we involved the representatives of the Kyiv City Administration, the City Council and experts in inclusive and special education, corrective pedagogics, multiculturalism, social pedagogics from other universities in the city.

The designed draft of the strategic plan for the development of inclusive education in Kyiv consists of several important parts.

The part “Organizational and legal grounds for introduction of inclusive education” covers:

- promoting the concept of inclusive education in the region;
- improving the mechanisms for working out the financial standards of training children requiring correction of physical and (or) mental development, gifted children, children from disadvantaged families, children of migrants and temporarily relocated persons, based on their individual training programs and plans;
- developing an algorithm to determine the level of inclusion (integration) at secondary schools and high schools;
- reforming preschools and secondary schools to meet the inclusion (integration) standards.

The next chapter – “Educational and methodological support of educational process in inclusive education” – covers the following measures and tasks: improvement or, for some groups – development, of the pre-school programs for children requiring correction of physical and (or) mental development, in correlation with degree of inclusion; upgrading the programs for gifted children and youth in general schools; development of programs of adaptation of migrants’ children in the learning process in different educational institutions in Ukraine.

In the chapter “Training of teaching staff, work with parents” the strategic goals include the following:

- development and implementation of innovative concepts and models of multilevel training of teachers and educational managers in the system of continuing education for working with heterogeneous groups and organizations;
- implementing in the curricula of future teachers training in higher educational institutions such modules as “Inclusion in Education” and “Pedagogical technologies of interaction with heterogeneous groups” and others (both for Bachelor and Master curricula);
- organizing departments for education of persons belonging to different heterogeneous groups in existing local government structures;
- implementing the system of psychological and educational assistance provided to parents of children from different heterogeneous groups from an early age.

The next part of the strategic plan is named “Providing the conditions for implementation of inclusive education”. It comprises the following objectives: expansion of

basic preschool, general and school educational institutions to disseminate inclusive education based on a broad understanding of the phenomenon of educational integration. It also means providing adequate facilities for children with special needs in basic experimental schools (ramps, elevators, speech therapy classrooms, textbooks in Braille etc.). Relying on the new principles and concepts of diversity pedagogics it is proposed to provide professional psychological, pedagogical and social support for children with special educational needs in basic schools providing inclusive education.

It also provides an annual assessment and monitoring of the implementation of inclusive education and of educational achievements (success) of students in terms of inclusive education in order to correct individual educational plans, programs and methods adapted to the potential and needs of a child.

### **Conclusions**

To sum up, the strategic plan proposes to abandon the outdated system of separating pre-school education working with children with special needs in kindergartens for mentally retarded children, children with delayed psychosocial speech development and the need for speech therapy. Instead, it postulates implementing the pre-school education system accommodating different degrees of inclusion:

- pre-school education for children with serious illnesses. It is also proposed to set up separate kindergartens for children with communication functions;
- inclusive pre-school education for children with diseases of moderate severity (25% of children with special needs, 75% of healthy children);
- inclusive pre-school education for children with minor deviations from the norm (50% of children with special needs, 50% of healthy children).

A similar systemic division is proposed for secondary schools:

- schools for students with serious diseases;
- schools with separate classes for pupils with special needs (during breaks and school meetings, students interact with healthy children);
- schools with inclusive classes.

It is clear enough that the implementation of such educational innovation requires the active involvement of municipal government, and in some cases – even the state government. The strategic plan and its implementation program are essential tools to launch this project.

Thus, building on the example of implementing the innovative concept of inclusive education and diversity pedagogy, this paper attempts to show the importance of strategic support by the municipal government for any social innovation implementation project. New ideas in any field appear permanently. But innovation dissemination in society does not only depend on what part of the population considers it to be socially useful, but also on consistent, and in the long term perspective, logical steps taken to implement it. Most effectively this consistency can be achieved under the framework of the strategic plan of innovation implementation.

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