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PRODUCTIVE LEARNING TECHNOLOGY AS MEANS OF EDUCATION QUALITY PROVISION

This article presents a review that provides insight in the concept, characteristics of productive learning in its correlation with education quality as well as the purposes of a productive learning environment. The problem of education inner and outer quality in higher educational establishments has been highlighted. The most important inner and outer components of productive learning as well as main turning points of productive learning history and basic definitions have been succinctly studied. This article defines three the most important components of a Productive Learning both inner and outer: 1) learning opportunity that helps to a select number of relevant learning choices, not a high volume and variety; 2) learning capability that helps to gain competences not just new business skills and knowledge; 3) learning environment that is necessary to share ownership of the learning environment, not just their individual learning. Thus, technology can play a key role in education quality provision.

Key words: education quality; productive learning technology; educational technology; learning culture.

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Introduction. Modern society raises the requirements for the education quality. The main reason of this process becomes obvious as every society that faced economic, social, moral or other difficulties has overcome them through the system of education. The problem of education quality has become more relevant due to Law of Ukraine on Higher Education. It claims that higher educational establishment must have the inner system of education quality provision. Recent review of scientific literature shows that the problem of education quality has become the research object of many Ukrainian scientists (V. Andrushchenko, I. Beh, O. Demchenko, V. Zinchenko, M. Kisil, K. Korsak, L. Koval, P. Saukh, J. Talanova, V. Tserklevich, I. Talizina, A. Tokman, M. Stepko and others). Despite this still many discussion questions remain to be unsolved. Under such conditions, it becomes clear that productive learning technology serves as one of the basic educational technologies that can guarantee inner quality of educational process.

Aim of the article. The main aim of article is to study the interdependence of productive learning technology implementation and education quality provision.

Main definitions. The study of the main definitions made it possible to define the most important which are connected with the compliance of the results of training with the requirements established by law:

1. **quality of higher education** is the compliance of the results of training with the requirements established by law, the relevant standard of higher education and / or the contract on the provision of educational services;

2. **quality of educational activities** is the level of organization of educational process in a higher educational institution, which corresponds to the standards of higher

education, ensures the acquisition of high-quality higher education by individuals and promotes the creation of new knowledge;

3. **quality assurance** is the process or set of processes undertaken at the national and institutional levels to ensure the quality of the educational programs and qualifications awarded (Understanding education quality, 2005).

This definition deals with the quality of the educational programs, but it does not reflect the importance of the methods or technologies used. One of the technologies that can provide high quality of education is productive learning technology. Productive Learning is defined as an activity based form of education. One of the main characteristics of Productive Learning is the participation of adolescents in social activities, particularly in professional life (What is productive learning?, 2016).

Productive learning definition. Recent scientific literature review proves the pluralism of approaches on productive learning definition. At the 2nd congress of INEPS, 1992 Peniche / Portugal productive learning was defined as an educational process leading to the development of a person's role in the community as well as bringing about change within the community itself. The process is realized by an itinerary of product-oriented activities in real life situations in an educational experience within a group that is facilitated by educators (2nd congress of INEPS, 1992 Peniche/Portugal).

This idea began to change and later productive learning was seen as a complex of learning and environment and was assumed that a productive learning environment was related to a psycho-social condition of learning: willingness, desire and curiosity, motivation, and interpersonal interaction in learning

(Felner, Seitsinger, Brand, Burns, & Bolton, 2007; Kester, Kirschner, & Corbalan, 2007; Sharan & Tan, 2008; Stager, 2005; Wentzel, 1998). Other scientists view productive learning as knowledge construction through creative learning engagement (Felner, et al., 2007; Fjuk & Berge, 2005; Kester, et al., 2007; Stager, 2005). From these two perspectives, it can be concluded that a productive learning environment refers to a learning environment that promotes students' needs, curiosity, motivation, active learning engagement, and interpersonal interaction providing students with authentic learning tasks for a meaningful knowledge construction.

Productive learning is learning on the basis of productive activity in social «real situations», learning on the basis of experience, of being able to achieve something important, both for oneself and one's environment. Thus, young people feel themselves to be important and valuable members of society and future specialists not simply reduced to the status of a student. Productive Learning begins with activity i.e. learning is itself a product gained by experience of productive activity and young people acquire this with the assistance of educationalists. Students become active, to begin with, for the sake of the activity, in order to produce something, to improve, to achieve, to prevent, express, communicate etc.

Nowadays productive learning is framed in a sociocultural perspective to show how it ties into a cluster of concepts on activity and transformation and illuminates the relation between learning processes and learning products.

History of productive learning technology. The study of scientific literature sources such as «What is productive learning?» (2016) and «Building a productive learning culture. More learning through less learning» (2015) help to understand the roots and the methodological background of productive learning technology.

Due to the sources, the concept development was inspired by the «City-As-School», an alternative high school in New York. This form of education started its development 20 years ago in Berlin in order to address mounting discrepancies and conflict between secondary school teaching and educational needs and interests of the pupils. From 1987 to 1991, Professor Jens Schneider and Ingrid Böhm (Med) established and tested, in co-operation with others, the basic principles of Productive Learning within the pilot project City-as-School Berlin. From 1991 to 1996, the concept of developing Productive Learning projects was drawn up and tested within the framework of an international IPLE project. This concept also includes a programme of further study in conjunction with these projects.

An adapted concept was designed in the late 1980th and tested in the pilot project in Berlin. According to the good results an experimental program with 15 schools and three institutions in the field of non-formal education started 1996.

In parallel the approach of Productive Learning was picked up in several European countries. In 1996 Productive Learning was introduced in Berlin, in the meantime 25 schools integrated the approach into their

school program. Since 2002 seven secondary schools in Brandenburg and 21 secondary schools in Sachsen-Anhalt introduced Productive Learning. Since 2005 27 secondary schools in Mecklenburg-Vorpommern started Productive Learning programs and in 2006 six secondary schools introduced Productive Learning in Thüringen. From 2009 eight schools in Sachsen introduced Productive Learning programs. Internationally the approach of Productive Learning was picked up in several countries, e. g. Finland, France, Hungary, Lithuania, The Netherlands, and Spain.

The curriculum and methodology was adapted to the national school law and standards, the structure of the educational system and the specific aims in the different countries. In some countries the experiences of pilot projects contributed to develop nationwide programs (e. g. the programs «My Own Career» and «Flexible Basic Education» in Finland). In some countries, e. g. Bulgaria and Romania, interested schools are still struggling for the formal permission to introduce pilot projects.

Productive learning technology and its influence on education quality. In 1990, the World Declaration on Education for All noted that the generally poor quality of education needed to be improved and recommended that education should be made both universally available and more relevant. The Declaration also identified quality as a prerequisite for achieving the fundamental goal of equity. While the notion of quality was not fully developed, it was recognized that expanding access alone would be insufficient for education to contribute fully to the development of the individual and society (Understanding education quality, 2005).

Given the diversity of understanding and interpretation of quality evident in the different traditions discussed above, defining quality and developing approaches to monitoring and improving it requires dialogue designed to achieve: broad agreement about the aims and objectives of education; a framework for the analysis of quality that enables its various dimensions to be specified; an approach to measurement that enables the important variables to be identified and assessed; a framework for improvement that comprehensively covers the interrelated components of the education system and allows opportunities for change and reform to be identified (Understanding education quality, 2005).

Main ideas represented in «Building a productive learning culture. More learning through less learning» deal with an international project, «Productive Learning in Europe», that is able to gain systematic and intensive experience of the educational form in several European countries. These experiences have been extensively documented. Nine so called Euromodules for vocational orientation in accordance with the City as School approach, as well as for vocational training in five different professional fields, reveal the variety of opportunities offered by this educational form, while at the same time showing the difficulties to be overcome (What is productive learning?, 2016).

One of the most important aspects that provide

quality of education is the activity aspect. By the «activity aspect» of Productive Learning, we mean mutual participation of both participants of educational process that solve professional situation or situation-based case. As we all know, this aspect of vocational orientation and vocational training can no longer be taken for granted. Unlike school projects, where an activity situation is artificially contrived for teaching purposes, learning in universities using this method become involved in regular and innovatory professional activities. These might be activities in business companies, organized training courses or case-study method usage based on the professional reality situations.

One of the most complex ideas that draw our attention is the idea of understanding professional reality. Professional reality should be complex in order to make possible an integral experience; if it is too specialized, if the division of labor is too pronounced, the meaning or purpose is more difficult to recognize, it cannot serve as a paradigm for the experience of personal productivity and so has less educational significance. For this reason, large industrial concerns, administrative institutions or commercial firms are not that suitable for Productive Learning. In the first place, the professional reality to be chosen and shaped for Productive Learning, must offer possibilities which challenge the person learning to become active.

Varied activities should prevent the slackening of motivation and communicate a variety of experience. There should be activities of varying degrees of complexity both in order to accommodate the activity

level of the person learning and to permit the formulation of problems. The characteristics of a productive learning environment synthesized from theories in the literature that have been generally found to contribute to the promotion of a productive learning environment are:

1. goal-oriented learning (Corte, 2000; Corte, Verschaffel, & Masui, 2004; Fiszer, 2004);
2. authentic and reality-based learning (Ballantyne & Packer, 2009; Gerjets & Hesse, 2004; Sharan & Tan, 2008; Smeets, 2005);
3. motivating and engaging activities (Ballantyne & Packer, 2009; Felner, et al., 2007).

Conclusions. The successes of Productive Learning prove the appropriateness of this educational paradigm and of the methodology for increasingly rapid social changes. Due to the mentioned above we can define three the most important components of a Productive Learning both inner and outer: 1) learning opportunity that helps to a select number of relevant learning choices, not a high volume and variety; 2) learning capability that helps to gain competences not just new business skills and knowledge; 3) learning environment that is necessary to share ownership of the learning environment, not just their individual learning.

Thus, technology can play a key role in answering the call with which this paper began: productive learning technology is means of education quality provision. Thus, we foresee further scientific investigation in analyzing qualitative indicators of productive learning technology educational process.

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ТЕХНОЛОГІЯ ПРОДУКТИВНОГО НАВЧАННЯ ЯК ЗАСІБ ЗАБЕЗПЕЧЕННЯ ЯКОСТІ ОСВІТИ

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У цій статті представлений огляд, який дає уявлення про концепцію, характеристики продуктивного навчання в його взаємозв'язку з якістю освіти, а також про цілі продуктивного навчального середовища. Окреслено проблему внутрішньої і зовнішньої якості освіти у закладах вищої освіти. Враховуючи різноманітність розуміння та інтерпретації якості, що обговорюється в різних педагогічних школах, визначення якості та розробка підходів до моніторингу та вдосконалення вимагає діалогу, спрямованого на досягнення: широкої згоди щодо цілей і завдань освіти; основу для аналізу якості, що дозволяє визначити його можливості; підхід до вимірювання якості освіти, що дозволяє ідентифікувати та оцінювати важливі зміни; рамки для вдосконалення, які всебічно охоплюють взаємопов'язані компоненти системи освіти і дозволяють визначити можливості для змін і реформ. Одним з найважливіших аспектів забезпечення внутрішньої якості освіти є «діяльнісний аспект» технології продуктивного навчання. «Діяльнісним аспектом» продуктивного навчання визначено взаємну участь учасників освітнього процесу професійної підготовки. Ідентифіковано три найважливіші компоненти продуктивного навчання: 1) можливість навчання, яка допомагає здійснити вибір відповідної освітньої програми; 2) здатність до навчання, яка допомагає набутти компетенції, а не лише знання та навички; 3) середовище навчання. Розглянуто ряд країн, у яких навчальний план і методологію було адаптовано до структури освітньої системи та конкретних цілей. Досвід пілотних проектів деяких країн сприяв розробці загальнодержавних програм (наприклад, програми «Моя власна кар'єра» та «Гнучка базова освіта» у Фінляндії). Найбільш важливі внутрішні і зовнішні компоненти продуктивного навчання, а також основні поворотні моменти історії продуктивного навчання та основні визначення були лаконічно викладені.

Ключові слова: культура навчання; технологія навчання; технологія продуктивного навчання; якість освіти.

ТЕХНОЛОГІЯ ПРОДУКТИВНОГО ОБУЧЕННЯ КАК СРЕДСТВО ОБЕСПЕЧЕНИЯ КАЧЕСТВА ОБРАЗОВАНИЯ

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В этой статье представлен обзор, который дает представление о концепции, характеристиках продуктивного обучения в его взаимосвязи с качеством образования, а также о целях продуктивной учебной среды. Выделена проблема внутреннего и внешнего качества образования в высших учебных заведениях. Изложены наиболее важные внутренние и внешние компоненты продуктивного обучения, а также основные поворотные моменты истории продуктивного обучения и основные определения. В статье определены три наиболее важных компонента продуктивного обучения, как внутреннего, так и внешнего: 1) возможность обучения, которая помогает выбрать необходимое количество вариантов обучения, а не большой объем и разнообразие; 2) способность к обучению, которая помогает получить компетенции, а не только новые деловые навыки и знания; 3) учебная среда, которая необходима для совместного владения учебной средой, а не только для индивидуального обучения. Таким образом, технология продуктивного обучения может играть ключевую роль в обеспечении качества образования.

Ключевые слова: качество образования; культура обучения; технология продуктивного обучения; технология обучения.

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