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# DEVELOPMENT OF CONTENT OF GENERAL SECONDARY EDUCATION: ANALYSIS OF FORECAST BACKGROUND

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**Abstract.** *The article deals with the problem of forecasting the development of the content of general secondary education. The definition of “forecasting the development of the content of general secondary education”, which is interpreted by the authors as a process of its quantitative and qualitative changes occurring under the influence of internal and external factors, provides the achievement of a qualitatively new state of its system, its compliance with social needs and personal needs of education applicants on a certain stage of social development. In the context of the study, the significance of educational and pedagogical forecasting as a powerful scientific tool for the development of the content of general secondary education has been substantiated, which makes it possible to determine and assess trends in its development, to develop and justify forecasts, to provide recommendations for the selection and design of the indicated content. The main groups of factors of the forecast background of development of general secondary education external to this object are forecasted and briefly analyzed, and prediction of the conditions and factors influencing it). It is substantiated that in the conditions of reforming general secondary education the weight of organizational-political (state educational policy), economic (labor market, information sphere development, labor migration, etc.), international factors (international educational cooperation, entering into the world and European educational space, etc.). Traditionally, the influence of scientific and technological factors, caused by scientific and technological progress (at the present stage, is the development of computer technology and information and communication technologies, etc.) remains. The authors attribute perspectives*

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*of further researches with refinement of the terminology system and the substantiation of the conceptual foundations for forecasting the development of the content of general secondary education, the development of a theoretical model and technology that will ensure the implementation of this process.*

**Key words:** *content of general secondary education; educational and pedagogical forecasting; forecasted background; development.*

## **INTRODUCTION. PROBLEM STATEMENT**

Since the beginning of the formation of pedagogical science, the content of education (and the related content of learning) have always been the focus of attention of researchers. Scientific and technological progress, the introduction of the latest information technologies form, on the one hand, the difficult requirements for the organization of the content of modern education, and on the other hand – contribute to the formation of a new didactic paradigm, the introduction of new means of its design. Educational and pedagogical forecasting is one of the most promising tool of logical, scientifically substantiated formation of the content of education in modern conditions. Possibility to construct the content of education with a prominent reflection of the social request for education in accordance with social and scientific achievements is its significant superiority over others.

The reform of the education system in Ukraine actualises the problem of the development of the content of general secondary education, creates prospects for the use of educational and pedagogical forecasting in the process of its solution. The task arises to theoretically substantiate and scientifically and methodologically provide forecast of the development of the content of general secondary education. The analysis of the forecast background for the development of the content of general secondary education is one of the important prerequisites for the successful solution of this problem.

## **LITERATURE REVIEW**

The works of many scholars are devoted to an issue of the general secondary education content development. General pedagogical and historical aspects of the researched problem are analysed in the works of T. Litnev (periodization of the history of the development of the content of general secondary education (30th years of the 20<sup>th</sup> century – the beginning of the 21<sup>st</sup> century), L. Pirozhenko (reforming the content of general secondary education in the middle of the 20<sup>th</sup> century), O. Savchenko (contents of school education at the end of the 20<sup>th</sup> – beginning of the 21<sup>st</sup> century), I. Strazhnikova (evolution of theoretical foundations of the content of education), O. Sukhomlynska (historical aspects of the development of the content of general secondary education), etc.

Theoretical fundamentals of the development of the content of national general secondary education were researched by V. Areshonkov (development of theoretical bases of the content of secondary education in the national pedagogy in the 20<sup>th</sup> century), S. Bushuev (theoretical principles of project management of the development of the content of education), S. Goncharenko, Yu. Malovany (humanization of content of general secondary education), V. Ilchenko (modernization of the content of general secondary education), V. Kamyshyn (modernization of the content of general secondary education aimed at the development of gifted children), O. Savchenko (development of content primary education) and others.

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The development of the content of general secondary education abroad became the object of study by Y. Zagrebenyuk (trends in the development of the content of education in public schools in the USA), O. Lokshyna (trends in the content of school education in the countries of the European Union), O. Mozoleva (development of the content of education in the field of physical culture and sports in Poland), N. Sheverun (content of foreign language education in Polish technical schools), etc.

The development of the content of education at a level of an educational area, of the subject (course) is studied by V. Bugriyi (school native land education), V. Kushnir (mathematical education), T. Machacha (school technological education), N. Sosnitska (school physical education) and others.

The theoretical positions that are important for the formation of a system for forecasting the development of the content of general secondary education are studied in the works of Y. Babansky, N. Bibik, V. Bondar, B. Gershunsky, T. Husen, E. Kostyushkin, V. Kremen, O. Lokshyna, L. Onyshchuk, I. Podlasy, O. Savchenko, M. Skatkin, O. Sukhomlynska, E. Toffler, O. Topuzov and others. However, the forecasting of the development of the content of general secondary education has not yet become the subject of a holistic theoretical study. In view of this, the chosen research problem is topical for the development of the theory and practice of forecasting the development of the content of general secondary education.

## METHODOLOGY

The fundamental methodological idea of the article is justification of expediency prognostication of the development of the content of general secondary education based on ideas and by using tools of educational, pedagogical and didactic prognosis.

Defining, studying and taking into account the forecasted context of the development of the content of general secondary education (a set of external research and technology, organizational, political, economic, social, socio-cultural, international factors that influence this process) are substantiated as the necessary stage of the specified prognostication.

The purpose of the article is to select and substantiate the components of the forecast background of the development of the content of general secondary education.

## MAIN RESULTS

In the “Great Explanatory Dictionary of the Ukrainian Language” the notion “development” is defined as “a process that results in a change of the quality of something, the transition from one qualitative state to another, higher one” (Busel, 2005: p. 1235). Processal, dynamic character is a generic feature of this concept; the change of quality, the transition to another qualitative state of its object – a species one.

The content of general secondary education is considered as “a reflection of all elements of the social experience of mankind” (Savchenko, 2013: p. 60), “the system of scientific knowledge about nature, society, human thinking, practical skills and abilities and methods of activity, experience of creative activity, philosophical, moral, aesthetic ideas and behavior, which must be mastered by the student in the process of learning” (Honcharenko, 1997: p. 137), “one of the components of the learning process” (Babans’kij ta in. (ed.), 1988: p. 366), “the system of scientific knowledge, skills and abilities, the mas-

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tery of which provides a comprehensive development of mental and physical abilities of schoolchildren, the formation of their world outlook, morals and behavior, preparation for social life, to work” (Babans’kij ta in. (ed.), 1988: p. 366), “the system of knowledge about the world around us, modern production, culture and art, generalized intellectual and practical skills, skills of creative solution of practical and theoretical problems, as well as ethical norms, which must be mastered by students” (Bondar, 2005: p. 53), etc.

Taking into account mentioned above, it should be noted that the adoption of the new Law of Ukraine “On Education” (2017) establishes a competently oriented concept of the content of general secondary education, since the educational process is considered as “a system of scientific, methodological and pedagogical measures aimed at the development of personality through the formation and application of its competencies”. The law defines the concept of “competence”, which is interpreted as “a dynamic combination of knowledge, skills, ways of thinking, views, values, other personality traits, which determines the ability of a person to socialize successfully, carry out professional and / or further educational activities”. The law states that “the purpose of complete secondary education is the comprehensive development, upbringing and socialization of the individual capable of living in a society and civilized interaction with nature, has a desire for self-improvement and life-long learning, is ready for a conscious life choice and self-realization, responsibility, work and social activity”, and “achievement of this goal is provided by forming the key competencies necessary for every modern person to succeed in life”. The list of the most important key competencies is also established by law (Pro osvitu : Zakon Ukrajinjy, 2017).

Different aspects of creating the content of general secondary education are indicated in scientific pedagogical literature as “selection”, “formation”, “design”, “modernization”, “development”. In our opinion, the concept of “development of the content of education” is the most extensive. According to the results of the analysis of scientific and pedagogical literature, one can give such a definition of “development of the content of general secondary education” – a process of its quantitative and qualitative changes, which occurs under the influence of internal and external factors, ensures the achievement of a qualitatively new state of its system, its compliance with public inquiries and the personal needs of educators at a certain stage of social development.

Considering the fact that the content of education is a didactically elaborated reflection of the best social experience of mankind, the main problem of the development of the content of general secondary education is to achieve an optimal balance between its components, the choice of which is conditioned by the need: the realization of social and personal inquiries; ensuring the transfer of the applicant both theoretical (knowledge) and practical (skills and abilities) to the experience of mankind; taking into account the actual state (the experience of solving the problems of the present) and outright reflection (potential experience of solving problems of the future) of the development of this experience.

Under this circumstance, the development of the content of general secondary education can not be reduced only to the quantitative increase (growth) of the volume of knowledge, skills, etc. It will take place when quantitative changes will result in new quality, higher quality state of the content of general secondary education, its correspondence to the demands of a society and man. In this context, it is appropriate to note that the process of developing the content of general secondary education is influenced by a group of factors, namely (Podlasyj, 1999: p. 317-320; Savchenko, 2013: p. 69-70): the ob-

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jectives of the state educational policy, strategies for the development of general secondary education, enshrined in normative legal acts of varying legal force; achievements of scientific and technological progress (the latest scientific knowledge, technology); social and personal needs; development of didactics and subject methods; internal opportunities of the system of general secondary education, etc.

Forecasting the development of general secondary education implies the mandatory determination of the above external factors (predictive background) of this object – “the aggregate of external objects in relation to the prediction of conditions essential for solving the forecast problem”. In pedagogical science, “the forecast background is divided into scientific and technical, economic, sociological, socio-cultural, organizational-political, international” (Bestuzhev-Lada et al., 1982: p. 170).

Let’s consider the influence of each of these components of the predictive background on the development of the content of general secondary education.

Political-legal (organizational and political) factors play the decisive role in the selection of educational content at the present stage. With a help of these factors a certain model of general secondary education is fixed in legal documents as regulatory (requirements for the content of education in the new Law of Ukraine “On Education”, State standards of Education, Concept “New Ukrainian School”, etc.). However, political and legal factors in the development of general secondary education (state education policy, adopting regulations (regulation), regulatory activities of the executive power, etc.) mediated by scientific and technical (proposals of scientists).

The idea of the decisive influence of scientific and technological progress on the life and development of a modern society, the acceleration of the changes taking place in it, has become universally accepted. A person of educational activity is aware that the scientific and technological progress puts forward new requirements to the content of general secondary education, which grow year by year.

The volume of scientific information received by scientists, carrying out fundamental and applied scientific researches, is growing rapidly (in some sciences, the amount of scientific knowledge doubles and even triples for several years). The growth of scientific knowledge in geometric progression challenges subject methods, designed to ensure the mastery of the students of the fundamentals of science, a complex problem of selecting the content of training. The situation with regard to the selection of content for training courses designed to ensure that students acquire different types of practical activity is almost the same. The development of technology due to scientific discoveries, is just as fast. For example, some computer models and software versions may become obsolete in the process of disclosure and implementation. In addition, topical knowledge and well-known ways of business lose their value compared to innovative, which guarantees their owner competitive advantages in relation to certain activities in the labor market, etc. Consequently, the question arises ahead of the requirements of scientific and technological progress in the content of education in general secondary education in particular. Solving these problems requires reliable theoretical and methodological principles, modern scientific and methodical tools for constructing the content of general secondary education.

The present stage of the development of pedagogical science and educational practice, in our opinion, posed to scientists the issue of creating a modern theory of the organization of the content of education. This issue becomes particularly acute in the context of the reform of the domestic system of general secondary education, the intro-

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duction of the Concept “New Ukrainian School”, one of the most important directions of which is “new standards and learning outcomes” (Pro skhvalennja Konceptciji, 2016).

The most famous in the 20<sup>th</sup> century. the theory of the organization of the content of education (didactic materialism, didactic formalism, didactic pragmatism, utilitarianism, etc.) were fairly criticized for the failure to systematically solve the problem, the incomplete correspondence of the results obtained (the resulting content) to the demands of society. On the other hand, the individual provisions of many of them have not lost value, are productive and successfully applied in modern educational practice.

The analysis of scientific and pedagogical literature makes it possible to identify the most essential requirements on the basis of which knowledge will be selected which will be included into the invariant component of the content of general secondary education, namely:

1. Fundamental, systematic character of knowledge, which will form the content of education. The process of mastering such knowledge should provide significant educational results, namely:

- developed conceptual (verbal-logical, abstract) student thinking, associated vocabulary and thesaurus (circle of knowledge and cognitive interests);

- the formation of the world picture according to the didactically worked out principles of science (the system of the most important knowledge about nature, society, person, thinking, etc.);

- the formation of a cognitive component of key competencies, subject competencies of education providers, etc.

2. Personality-developing potential of certain knowledge, its significance for the formation of personal qualities of the applicant of education, his optimal physical, psychological, moral-spiritual and social development within school walls and outside them. Note that this requirement is the most complicated and most controversial, since any scientific knowledge can contribute to the student’s mental development. Thus, the learning of certain textbooks in most cases will contribute to the development of his memory, but specific “learnt by heart” knowledge may never be used by a pupil.

3. Knowledge as an integral part of modern educational content must be integrated. It is about the allocation of concentrates (categories, problems, methods of activity, etc.) that will enable the integration of knowledge of different sciences, thereby reducing the amount of knowledge (educational material), and the quality of education will not change (Podlasyj, 1999: p. 324). It is worth noting that the realization of this requirement generates the need to escape from the substantive structure of the content of education (the subject as didactically based foundations of a certain science).

4. Ensuring the prognostic nature of knowledge, which should correspond not only to the actual picture of the world (to reflect the achievements and problems of modern society, science, technology, etc.), but also to show the scenarios for their future development, to prepare the applicant for education. Such forms of scientific knowledge as a scientific hypothesis, scientifically grounded prognosis, a trend, etc., as well as knowledge of the theory and technology of forecasting in the respective spheres of public life will become more important for the content of the general secondary education of the future.

5. Observance of communication of knowledge, which will be an integral part of the content of education, with the life of the learner of education, the possibility of practical application of them for solving daily life problems. This requirement should become not only a criterion for selecting the content of education, but also to stick to the content of

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learning, embodied in the organization and implementation of this process. The fact is that fundamental knowledge, which is not supported by applied knowledge of the ways of its further knowledge and transformation, are not connected with daily (or creative) activity, do not cause an emotional attitude, acquire an “abstract-classroom” character and are more likely to be forgotten as unnecessary.

According to the mentioned above, one can propose the following sequence of selection of knowledge to the content of general secondary education: knowledge must be fundamental; among the fundamental knowledge it is necessary to highlight those with the most important personality development and applied potential (significant for solving life problems), prognostic nature; highlighted knowledge should be integrated.

The solution to this problem will be significantly promoted by informatization of the process of designing the content of education, which greatly facilitates, accelerates and reduces the cost of this process due to the use of modern information and communication technologies and information technology.

The above requirements may seem complicated. However, the traditional historical way of forming the content of education, which is an alternative to them, can no longer fully ensure the development of the content of general secondary education.

Another important component of the forecast background for the development of the content of general secondary education is economic. Economic factors in the development of the content of education are traditionally associated with higher education. However, the content of modern general secondary education is also under their influence. The new Law of Ukraine “On Education” (2017) refers to the competence of the selection of the content of general secondary education, and the formation of a competent educational approach has become a reaction of European educators on the requirements of employers to prepare graduates of schools). The envisaged by this law deepening its profile character and the allocation of “market-oriented labor” vocational guidance of secondary education (10-12 grades), which provides “the combination of the content of education, defined by the standard of secondary education, and a career guidance approach to learning, taking into account the abilities and the needs of students” (Prosvitu : Zakon Ukrainy, 2017) are also due to economic factors.

Social (socio-economic) and socio-cultural factors of the development of the content of general secondary education, whose role in the future will grow, are closely linked with economic ones. In modern, informational, society, the level of education of a person determines her position, income, social status. As high-quality general secondary education determines the possibility of obtaining higher education, employment, its importance is increasing. We are witnessing the gradual “crystallisation” of the public request for the content and quality of general secondary education. His example is the attention that students and their parents pay to the studying of subjects that will be subject of external independent assessment and foreign languages, computer science, etc. Formation of such a request testifies to the important socio-cultural tendency – the majority of the population considers qualitative general secondary education not as a life-time, which needs to be done or vice versa, as a self-value, a fetish, but is consciously understood as a means of achieving the vital and social success that can be chosen, to the contents and organization of which it is possible and necessary to put forward the needed requirements.

International factors of the forecast background of the development of the content of general secondary education cover the measures of international and interstate cooperation of Ukraine in the sphere of general secondary education, connected with

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international programs and projects, scientific and educational exchange in the field of formation and implementation of the content of general secondary education.

## CONCLUSIONS

The content of general secondary education is didactically developed best practice of mankind, which traditionally includes knowledge, skills and abilities, methods of activity, experience of creative activity, etc. The current stage of reforming the national education necessitates the development of the content of general secondary education.

The development of the content of general secondary education is a process of quantitative and qualitative changes taking place under the influence of internal and external factors, ensures the achievement of a qualitatively new state of its system, its compliance with social demands and personal needs of educational attainments at a certain stage of social development.

Educational and pedagogical forecasting is a powerful scientific tool for developing the content of education. It makes it possible to identify and assess its trends, develop and justify forecasts, provide recommendations for its selection and design.

Forecasting the development of the content of general secondary education involves determining its forecast background (external to this object of forecasting the conditions and factors that affect it). Traditionally, the component composition of the forecast background includes scientific, technical, economic, sociological, socio-cultural, organizational-political, and international factors.

The analysis of the forecast background of the development of the content of general secondary education gives grounds to assert that under the conditions of reforming general secondary education the weight of organizational-political (state educational policy), economic (labor market, development of information sphere, labor migration, etc.), international factors (international educational cooperation, entry into the world and European educational space, etc.) is increasing. Traditionally, the influence of scientific and technological factors, caused by scientific and technological progress (at the present stage it is the development of computer technology and information and communication technologies, etc.) remains.

Prospects for further research are connected with the refinement of the terminology system and the substantiation of the conceptual foundations for forecasting the development of the content of general secondary education, the development of the theoretical model and technology that ensure the implementation of this process.

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