
CONCEPTUAL FOUNDATIONS FOR THE UPPER SECONDARY EDUCATION TRANSFORMATION IN THE CONTEXT OF UKRAINIAN SCHOOL REFORM



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Abstract. *The introduction of the concept of the New Ukrainian School provides for the transformation of the national system of full-time general secondary education on a new conceptual basis for all its levels, including at the level of upper secondary education. The strategic function of the final stage of secondary education is to provide educational applicants with the opportunity to meet their educational needs depending on their future life plans – continuing their studies or obtaining a profession. Therefore, upper secondary education should be based on the principles of deep individualization and differentiation of learning, considering students' needs and interests, their abilities and life intentions of self-realization. Based on the generalization of domestic and foreign experience, the article presents the main conceptual foundations for the introduction of upper secondary education in two areas – academic and professional. In the content of education, it is proposed to distinguish two components: 1) the core of general education training, which is mandatory for all those who receive a full-time secondary education; 2) content that, depending on the direction, provides in-depth mastery of profile-oriented knowledge, competencies, methods of activity, etc. The first component can be reflected in four areas: Language and Literature, STEM, Social and Humanitarian Education, physical development and security. The second component, depending on the direction, is implemented by specialized subjects studied in depth, or professionally oriented disciplines for institutions of vocational and professional pre-higher education. In accordance with this division of content, educational institutions create educational/educational-professional programs in agreement with the selected training profiles, professions or specialties. To meet the educational needs of applicants for education, local self-government bodies form a network of upper secondary education institutions of various types (academic and professional lyceums, colleges, specialized education institutions), which function mainly separately or in combination with other educational institutions and establishments.*

Keywords: *upper secondary education, New Ukrainian School, content of education, profile training, academic direction of the upper secondary education, professional direction of the upper secondary education.*

INTRODUCTION, PROBLEM STATEMENT

Reforming general secondary education in accordance with the concept of the New Ukrainian School (Kabinet Ministriv Ukrainy, 2016) provides for a wide range of conceptual principles that apply to all levels of comprehensive general secondary education, including at its final stage – upper secondary education. A broad discussion of the problems of implementing state standards and educational programs at the earlier stages of education – primary and basic secondary education – is currently gradually shifting to the outline of the upper secondary education challenges, especially in connection with the urgent need to develop a project of the State Standard of the corresponding level of education.

Different opinions are expressed regarding the problems of the upper level of the Ukrainian school functioning, mainly related to the ambiguous interpretation of the legislative norms of profile education and the lack of agreed conceptual foundations, taking into account the available experience of its implementation in the past (Kremen, 2021).

The idea of profile training was actively implemented at the initiative of scholars of the National Academy of Educational Sciences (NAES) of Ukraine in 2001 in connection with the transition of the Ukrainian school to a 12-year period of general secondary education (Verkhovna Rada Ukrainy, 2001). All three concepts of profile training (2003, 2009, 2013), developed by NAES scholars, were considered and approved by the Board of the Ministry of Education and Science of Ukraine (Ministerstvo osvity i nauky Ukrainy, 2003; Ministerstvo osvity i nauky Ukrainy, 2009; Ministerstvo osvity i nauky Ukrainy, 2013). As a rule, this happened on the eve of the state standards development for the corresponding level of education. Therefore, we believe that before devel-

opment of the State Standard of Upper Secondary Education, it is also appropriate to develop the conceptual principles of the corresponding level of education in order to avoid misunderstandings during the introduction of this document and its implementation in the educational practice of various types of educational institutions providing upper secondary education. After all, in accordance with the legislation (*Zakon Ukrainy "Pro osvitu"*, 2017; *Zakon Ukrainy "Pro povnu zahalnu seredniu osvitu"*, 2020; *Zakon Ukrainy "Pro profesiinu (profesiino-tekhnichnu) osvitu"*, 1998; *Zakon Ukrainy "Pro fakhovu peredvyshchu osvitu"*, 2019) this education can be obtained in institutions of general secondary, vocational and technical (VET), specialized, professional pre-higher education, as well as in institutions that have a license to carry out educational activities at the appropriate level of education.

Upper secondary education is the third (highest) level of comprehensive general secondary education, which completes the implementation of its goal defined by the Laws of Ukraine "On Education" and "On Full-time General Secondary Education" (*Zakon Ukrainy "Pro osvitu"*, 2017; *Zakon Ukrainy "Pro povnu zahalnu seredniu osvitu"*, 2020).

The strategic function of profile education is that it should lay the foundation for the further successful development of the country's human potential, which is achieved by focusing the educational process on meeting the educational needs and requests of students in accordance with their inclinations, abilities, and future life plans. This is ensured by providing education seekers with the opportunity to freely choose the forms of obtaining education, its content and mastery level, satisfying the self-realization intentions of the individual. It is here that the conditions are created for leveling the contradiction between the fairly generalized requirements of society and the state for the general educational training of the younger generation and the cognitive interests and educational needs of each individual student of education. Therefore, upper secondary education should be based on the deep individualization principles and education differentiation, diversification of all the educational process components – its goals, content, methods and forms of education, assessment methods, etc., depending on the chosen direction of education.

In accordance with the legislation, the most general level of differentiation provides for the separation of two directions in upper secondary education:

- academic, focused on continuing learning at higher levels of education through a combination of the content of education defined by the State Standard of Upper Secondary Education and in-depth mastery of certain fields of knowledge, taking into account the abilities and educational needs of students;
- professional, focused on acquiring a specific profession (specialty) through a combination of educational content defined by the State Standard of Upper Secondary Education and a professionally oriented approach to learning, taking into account the abilities and needs of students.

These two directions of upper secondary education are provided by the appropriate network of educational institutions, which enables students to meet their educational needs in accordance with their abilities and life intentions to continue their education or acquire a profession.

The purpose and tasks of the article. In accordance with the above, the purpose of the article is to define the conceptual foundations of upper secondary education, which can form the basis of a new concept and regulatory documents governing the functioning of educational institutions of academic and professional directions: The State Standard, educational and professional programmes, the Regulation on Lyceum, the Regulation on Scientific Lyceum, etc.

Based on this purpose, there are tasks aimed at solving the problems of determining the content of upper secondary education, in particular its general educational core, which is mandatory for all who receive such education; clarifying approaches to the organisation of the educational process in different types of educational institutions and the formation of learning profiles; outlining the network of educational institutions that provide upper secondary education in accordance

with the target functions of their educational activities (general secondary, vocational and technical (VET), specialised, professional pre-higher education).

MAIN RESULTS

Content of upper secondary education

According to the current legislation, the education content is determined by the State Standard of the corresponding level of education, educational/educational-professional programs, model training programs, educational/educational-professional and training programs of the educational institution. The latter are the final documents by which educational institutions work.

The formation and implementation of the upper secondary education content should ensure, on the one hand, the target priorities and educational activity features of the educational institution providing full general secondary education, and on the other hand, the individual educational needs of each student. Therefore, in the upper secondary education content, regardless of its direction, it is necessary to single out the core of general education, which is mandatory for implementation by all educational institutions providing full-time general secondary education. In institutions of general secondary education of the academic direction, the profile training content is determined by combining the core of general education with in-depth study of its individual subjects. In education institutions of professional direction, individual subjects of the general educational core can be integrated with related disciplines of professional training, provided that the requirements of the State Standard of Upper Secondary Education are met.

The upper secondary education content, regardless of its direction, includes the following two components:

a) the education content, which is invariant for implementation by all educational institutions providing full-time general secondary education, regardless of their direction (academic or professional);

b) the profile training content, which, depending on the direction, ensures in-depth mastery of education seekers with profile-oriented knowledge, competences, methods of activity, etc.

In accordance with the Law of Ukraine “On Education” (*Zakon Ukrainy “Pro osvitu”*, 2017), the first of these components is determined by the State Standard of Upper Secondary Education. The development and approval of the second component for the academic direction of upper secondary education is provided by the Ministry of Education and Science of Ukraine in the form of model training programs, on the basis of which the educational institution develops its own educational and training programs taking into account the specifics of study profiles.

The second component of the profile education content for vocational and technical (VET) education institutions is determined by state standards for a specific profession for the training of qualified workers (*Zakon Ukrainy “Pro profesiinu (profesiino-tekhnichnu) osvitu”*, 1998); for institutions of professional pre-university education, which provide it on the basic secondary education basis, it is reflected in integrated educational and professional programs developed and approved in accordance with the Law of Ukraine “On Professional Pre-higher Education” (*Zakon Ukrainy “Pro fakhovu peredvysychu osvitu”*, 2019). The profile content of education in institutions of specialized education is determined by the relevant standards of specialized education.

The issue of determining the content of the invariant component (general educational core) and, accordingly, the instruction time required for its study, remains a fundamental and debatable issue to this day. It is quite common to try “by inertia” to leave in its structure all educational areas of the previous levels – primary and basic secondary education – with the maximum preservation of the nomenclature of educational areas and educational subjects. This naturally leads to an excessive increase in the content mandatory amount for all education seekers and makes

it impossible to implement the strategic function of upper secondary education – meeting the educational needs and requests of education seekers in accordance with their inclinations, abilities, and future life plans.

Proponents of another approach tend to limit the invariant component content (general educational core) to several subjects and focus their efforts mainly on the implementation of the profile training content. The fallacy of this approach is also obvious, if only considering the fact that at the profile level of full-time general secondary education, the implementation of the tasks of comprehensive development of an individual with a broad scientific outlook, critical and creative thinking, ready for successful socialization and life in an innovative globalized technological world should be ensured. After all, the professional success of specialists of any specialty, the speed with which they master new, purely professional skills, largely depends on the general education fundamentals. Therefore, focusing only on narrow-profile training will not contribute to the successful formation of a comprehensively developed personality and solving the set of tasks of obtaining a full-time general secondary education in the context of the profiling of the Ukrainian upper secondary education level.

In upper secondary education, it is expedient to consolidate educational areas by summarizing them into four ones with the following mandatory and optional educational components¹:

- linguistic and literary education: **Ukrainian, English, other foreign languages, languages of national minorities and indigenous peoples of Ukraine**²; **block of literature**: *Ukrainian literature, foreign literature, integrated literature course*;

- STEM education: **mathematics**; **block of natural sciences**: *biology, physics, chemistry, astronomy, integrated course of natural sciences*; **block of information technology subjects**: *informatics, ICT in everyday life, robotics, technologies and design, agricultural technologies, production technologies, household technologies*;

- social and humanitarian education: **history of Ukraine, world history, history of Europe**; **block of social science subjects**: *civic education, economics and entrepreneurship, social and economic geography, integrated social science course*³; **block of humanitarian training**: *Ukrainian artistic culture, cultural studies, art (by types), creative self-expression*;

- physical development and security: **physical culture and sports, defence of Ukraine**; *first medical aid, life safety, healthy lifestyle*⁴.

Depending on the educational needs, each of the educational components can be taught in two versions:

- 1) as a separate educational subject at one of two mastery levels – basic or advanced;
- 2) as an integrated course covering several areas of knowledge or academic subjects.

1 Compulsory basic subjects that are subject to external independent assessment (EIA) or compliance with standards during the State Final Attestation (SFA) are highlighted in bold. Elective subjects are highlighted in italics, the list of which is determined by the educational institution when developing an educational program taking into account the study profile (at least one subject is selected from each block of elective subjects). The list of elective subjects can be supplemented by the educational institution.

2 In academic lyceums, elective subjects in foreign languages, languages of national minorities and indigenous peoples of Ukraine are studied at the expense of profile study hours and additional hours for optional classes and elective courses. For special education and profile education of professional direction – at the expense of additional hours for optional classes and elective courses chosen by a student, other components of the educational/educational-professional program or in another way established by the educational institution.

3 For academic and scientific lyceums – at the expense of hours for optional classes and elective courses of the student's choice. For special art education and profile education of professional direction – at the expense of hours for optional classes and elective courses of the student's choice or due to integration with professionally oriented courses.

4 The educational process organization in this area is carried out in the form of sports or health-preserving activities, taking into account the students' health status, their general physical fitness and readiness for sports (sports sections, health groups, etc.).

In view of this, the EIA for compulsory subjects should also provide for two levels of assessment of students, i.e. basic and advanced, depending on the level of their study of the subject.

Model training programs should be developed for both content levels of each basic subject and for integrated courses in accordance with the requirements of the State Standard of Upper Secondary Education. Ensuring their development and approval is entrusted to the Ministry of Education and Science of Ukraine.

The total amount of study load of students of general secondary education institutions of academic direction is distributed between educational areas and years of study, taking into account the profile-adaptive (10th grade) and profile (11–12th grades) cycles of upper secondary education. The implementation of each of the above mentioned components in the educational process depends on their content and does not necessarily last all three years of study. The concentration of the invariant content of general education can be seen to a greater extent in the 10th grade, where the profile content is mainly propaedeutic in nature. In general, the instruction time provided for the implementation of tasks of invariant content and the content of profile training should be distributed over three years in a ratio of 50/50 with possible variation in one direction or another depending on the year of study.

In order to take into account the students' individual needs and interests and to ensure flexibility in meeting their educational needs, it is advisable to set aside a certain number of hours (approximately 10–15%) in the general educational load of students for optional classes, individual consultations, elective courses chosen by students, which will help to personalise the educational trajectory of the student. This component may not necessarily be related to the specifics of the selected profile content. For example, a student who has chosen a physics and mathematics profile can optionally improve his/her knowledge of the Ukrainian or English language, and those who receive an education according to one of the humanitarian profiles can expand their competence in the area of information technologies. The list and content of optional courses is formed by the educational institution.

Organization of the educational process

The profile training content is the main means that makes it possible to really direct the educational process to meet the educational needs of students determined by their inclinations, abilities, interests, professional orientations. Within the profile education of an academic direction, this is achieved by giving students the opportunity to deepen and expand their knowledge, acquire subject competences in the content of the invariant component, as well as related subjects/courses.

The educational institution independently chooses the level of study of the subject and the model according to which this or that area of knowledge will be studied – in the form of separate subjects or an integrated course, and determines the number of instruction hours necessary for their mastering. For example, in a STEM profile, the social studies content component may be represented by an integrated social studies course or “Civic education”; in the linguistic and literary profile, a set of natural sciences subjects – an integrated course in natural sciences; depending on the study profile, mathematics can be studied as a practically oriented course or as a fundamental discipline with its traditional division into algebra and geometry.

The educational program developed by the educational institution outlines the educational subjects list that are studied in depth according to the chosen study profile. The number of instruction hours directed to the study of basic profile subjects consists of the hours provided by the invariant component of the content for this subject and the educational load of the profile training content. The volume of the educational load for each of the mandatory educational components depends on the educational institution type, but cannot be less than the minimum number of hours determined for the relevant educational area by the Basic Curriculum of Upper Secondary Education.

The set of subjects that students study in depth, as well as special courses, elective courses, etc.,

determines the specifics of the corresponding study profile, which is formed on the basis of the relevant educational area. For example, according to the academic direction of upper secondary education, the following main study profiles can be distinguished:

- language and literature with specializations: Ukrainian language and literature, English and one of the foreign languages or their combination;
- STEM with specialisations in mathematics and computer science, physics and mathematics, physics and machinery, biology and chemistry, computer science and robotics, engineering and technology, agrotechnology, etc.;
- social and humanitarian with specializations: history and law, economics and entrepreneurship, geography and ecology, cultural studies, etc.

In addition, in accordance with the profile education directions, the given list is complemented by training profiles specific to this type of education:

- scientific with specializations in the field of knowledge and/or types of research activity;
- arts with specializations in art forms;
- sports with specializations in sports;
- military with specializations in types of military training.

Upper secondary education of a professional direction is obtained in educational institutions, which simultaneously with the training of personnel in a certain specialty for the labor market carry out general education based on basic secondary education (professional lyceums, institutions of vocational (VET) education, professional pre-higher education institutions and institutions, which received the appropriate license, etc.). Their profile is determined according to the professional training or specialty acquired under the educational/educational-professional program of the corresponding level of education.

General education training in these educational institutions is carried out in the minimum volumes determined by the Basic Curriculum, taking into account the specifics of acquiring a profession/specialty at the appropriate level of education. The specialization of the general education training of education seekers is carried out in accordance with the educational/educational-professional program, the content of which depends on the professional orientation and qualification and meets the requirements of special laws of the education corresponding level. The amount of general educational training of vocational and professional pre-higher education holders, which is carried out on the basic secondary education basis, should be sufficient for the training of a qualified worker/professional junior bachelor.

Network of specialized secondary education institutions

The network of specialized secondary education institutions is formed by local self-government bodies at the regional level. It includes:

- academic lyceums that function, as a rule, separately or in the “gymnasium– lyceum” or “primary school – gymnasium – lyceum” complex, in the presence of proper equipment and staffing;
- professional lyceums, which provide full general secondary education based on basic secondary education and carry out professional training of personnel for the labor market¹;
- lyceums providing upper secondary education in both directions – academic and professional;
- scientific lyceums that provide basic and full general secondary education and can integrate with regional divisions of the Junior Academy of Sciences of Ukraine, scientific institutions and other educational institutions²;

1 We propose that all VET institutions that provide full-time general secondary education be called professional lyceums and give them the right to also provide training of the qualified workers without providing the 3rd level of full-time general secondary education.

2 We propose a rule that each region should have at least one scientific lyceum.

- art lyceums, which, in addition to general education, ensure the development of a child's creative abilities in various spheres of culture;
- sports lyceums, which contribute to the achievement of high sports results of students and provide full-time general secondary education;
- military lyceums, which carry out pre-professional training of future officers and provide full-time general secondary education;
- specialised (professional) colleges conducting educational activities related to the acquisition of professional pre-higher education and full-time general secondary education on the basic secondary education basis;
- other establishments and institutions that have a license to carry out educational activities at the upper secondary education level.

The network of upper secondary education institutions at the regional level should fully meet the educational needs of students in the main academic profiles of upper secondary education and specialised education in various areas and in obtaining professions in demand in the region.

CONCLUSIONS

The outlined conceptual principles of upper secondary education correspond to the development trends of world educational systems. They are based on the best examples of Ukrainian practices of profile training and foreign experience of organizing educational activities at the final stage of full-time general secondary education, in particular in the EU countries (Kremen, Liashenko & Lokshyna, 2020). Their implementation will contribute to the improvement of the general secondary education quality in Ukraine and the organic integration of the national education system into the European educational area.

Further studies of the problem of the introduction of upper secondary education in the Ukraine relate to the issues of theoretical substantiation of options for a differentiated approach to the educational process organization, integration of general education and professionally oriented subjects, models of profile training implementation in secondary education institutions of academic direction, didactic and methodological support for the implementation of the profile training content.

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