

META-SUBJECT ROLE OF SCHOOL GEOGRAPHY

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This article deals with the formation of the meta-subject knowledge that is the basis of intellectual competency and personal development. On this background, the role of geography, which occupies a prominent place in the development of personality and perception of environment by him/her within the spatial-temporal framework is considered. To some extent, these approaches highlight the role and place of geography in shaping meta-subject knowledge.

Furthermore, in the article, based on the specific examples, the importance of a geography textbook was determined, and its role in the process of forming metasubject knowledge of secondary schools pupils were highlighted.

The author offers his own version of the model of the textbooks on geography. It displays the design and the implementation of the methodology model of a textbook on geography for secondary schools. It is noted that this model of a textbook is formed on the curriculum basis and is based on applying such methodological approaches as personality-oriented, competence-based, activity-based, regional, problem, metasubject ones. Their reflection in the book ensures the certain prerequisites for the changing role of the teacher and the pupils in the educational process, and its intensification in the classroom transforms geography education into the mainstream of the pupils' creative activity, makes it possible to take into account their educational needs and personal orientation vector in forming the geographical picture of the world. The combination of these components in a model ensures conditions for the implementation on the basis of geographical education based on the child centrism.

Key words: curriculum; meta-subject approach; methodological model; methodology of teaching geography; teaching approaches.

Problem statement. The issue of establishing stable inter-subject relations interested educators in the distant past. In particular, such progressive educators as J. Comenius, K. Ushynskyy, J. Locke underscored the need for the links between educational items to reflect the complete picture of nature in the pupil's mind, and to create an internal system of knowledge and proper understanding of the world (the formation of the pupils' scientific world). J. Comenius advocated the interconnected study

of grammar, philosophy and literature, and J. Locke highlighted history and geography [5].

Intersubject links and meta-subjectivity are based on the philosophical foundations of general development. It should be noted that the method of teaching geography, like any other science requires continual development since the existence of science is impossible without its movement. This position is based on a mathematical representation of the irreversibility of time. Thus, for the methods of teaching geography today, motion and development in every moment of synthesis and fusion, the combination of “before” and “after” for now is topical.

On the one hand, it demonstrates that it is necessary to define all aspects of the formation and development of science clearly, on the other hand, that it has to include a prognostic aspect. Such approaches set the stage not only to develop new methodological foundations, but also take into account new trends in teaching science, in particular, obtaining meta-subject educational results. This trend is becoming relevant due to the introduction of profession-oriented education in high school when geography is a part of natural, geographic, economic, and environmental profiles. Due to its dual nature, geography includes a physical-geographical and socio-geographical components; it is oriented at applying to both interdisciplinary connections and the meta-subject approach to training and achievement of the meta-subject educational outcomes [2]. It should be recognized that during centuries, geography as a school subject, not only integrated a range of natural and social knowledge, but also ensured conditions for achieving meta-subject learning results by means of physical, economic, social, political, mathematical geography and geographical studies.

Besides, thanks to its integrative nature, geography is a kind of methodological testing ground for introducing meta-subjects. Each of them including “Task”, “Knowledge”, “Problem”, “Meaning”, “Scheme”, “Challenge”, etc. has its geographic channels of expression [9, 10].

Analysis of the recent researches. According to V. Kremen “Every era is different in value determinations” as it is predetermined by the process of the social and cultural life [3, 73].

It is noteworthy to state that outlined in the Concept of geographic education in the elementary school, it was outlined that geography is a philosophical subject, that helps the CEI pupils to form the relationship and the interdependence between the natural course of social and economic processes at three levels: local, regional and global in their mind; it allows the pupils to build the geographical picture of the world in their mind [2]. The State standard of basic and secondary education states that there are three levels of comprehensive development programs that can be realized at the level of personal, meaningful and meta-subject results. The first ones

are implemented on the basis of values, individual and personal positions, motives, personal qualities; the second ones are absorbed by the pupils in the study of school subject, formation of skills, competencies and attitudes, experience of creative activity; meta-subject ones are acquired through the development of universal methods applied, within the framework of the educational process, and in real life situations [1].

The purpose of the article. Currently, the urgent problem appears to be the development of the new methodological principles of geography teaching to suit the new paradigm shift in the educational system of Ukraine. In this regard, the question of the changes in the role of a teacher and a pupil in the educational process is especially significant. O. Savchenko, who underscores the role of a teacher as an organizer of educational activity in her book *Elementary School Didactics*, indicates that a teacher should guide the activities of pupils so that they were participants, not passive observers of the educational process, interacted with the teacher and learnt other subjects [8].

Therefore, nowadays the development of meta-subject training bases is especially important, as through their introduction into the educational process, a CEI will be prepared better for the realities of life and become more competitive.

Main body. The main incentive for any activities organized by the teacher is his/her performance. A CEI pupil as one of the subjects of the educational process, searches for an immediate result, and this result is a source of new needs and another impetus to educational activities. That is the reason why such method of organizing pupils in the process of training and educational activities as a collective perspective is significant; it ensures the combination of the intended result with the daily, albeit small, result. However, it is necessary to keep in mind the fact that outdoor activity is often adaptive whereas indoor activity is converting [6]. Therefore, in terms of the subject teaching methods, the methods of teaching geography, in particular, are important and modern for introducing the meta-subject training basis. On this background, the teacher and the pupils are not only in terms of subject, but also research and value-semantic activity whereas the secondary school teacher continues to organize and manage different types, kinds and forms of activity in the learning interests of personality. Organization and management of space is not decreasing, but is rather expanding to appeal to the general, meta-subject training bases.

Meta-subject activity is closely related to the subject activity, as it is one of its fundamentals. Specifically, thanks to its structure and development history as a school subject, geography reflects its meta-subject. Consequently, taking it into consideration, 70 % of information that treats people every day has geographical implications.

It is necessary to take into consideration that meta-subject activity is not identical to the common educational one. It is characterized by the withdrawal beyond academic subjects, but not the complete refusal of them. On the one hand, meta-subject is one or several subjects or several objects simultaneously, and it lies in their root. Thus meta-subjects can not be separated from objectivity, as they are located in dialectical unity [10].

On the other hand, common educational activity is a part of learning; it means that its action is parallel to the subject. Thus, it is independent from objects and can be applied to any of them, including geography.

It should be stated that the use of the meta-subject approach to learning is relevant to all levels of education: primary, basic, senior profession-oriented school. However, it will be most effective, probably in terms of the specialized schools where pupils are peculiar for their self-identification: social, personal, professional, spiritual and practical one. Furthermore, in the minds of the pupils of specialized schools, the leading role is played by motives related to self-determination and preparation for independent living. In terms of the goal of objectivity, these motives acquire personal meaning and become valid [6, 7].

Given the trends of the national educational system, we will make a number of proposals relating to a textbook in general and a geography textbook, in particular, which are valuable in terms of the design of a new model of textbook.

In order to ensure stable relations in the triad: “The concept of education – educational standards – curriculum”, which serves as the template for creating a methodological means of teaching standards in the segment of geographical education, we should foresee that geography is not only a natural science, but also a social one. Therefore, school geography courses should consider the major substantive lines of both physical geography (natural science courses) and socio-economic geography (social and humanitarian ones). In addition, there is a need to introduce such meta-subject blocks as “Task”, “Sign”, “Knowledge”, “Problem”, “Sense”, “Situation”, “Scheme” in the primary school in the fragmented way, and the senior profession-oriented school in the system way. There is a need to develop the new meta-subject “Information”. In the textbooks of geography, these aim substantive blocks can be present in the form of logical bridges that connect different content components; they can have a modified title (depending on pupils’ age characteristics), but bear a general scientific direction [9; 10].

In particular, to some extent, the meta-subject “Sign” in the textbooks is used in geography; it forms the pupils’ ability to systemize and plays a role in systematizing information. Since geography contains significant amounts of graphic information, meta-subject learning activities of pupils are natural and necessary on this background. CEI pupils learn to express the information

that they understand what they want to say by signs. Quite important point is the generalization of educational information in the form of signs. According to various graphics they learn to see that perfect intellectual content. Thus the sign serves as the supporting logic signal to the perception and communication of information and its generalization in logical blocks.

The meta-subject “Problem” is used in the teaching of geography systematically. On the territory of Ukraine, it was introduced by M Topuzov in the process of learning geography and later it was continued by O. Topuzov. This meta-subject ensures the development of the ability to think, develops its subjective and personal features. Based on this meta-subject, a disciple learns to see and understand the whole situation, to form their own judgments about it and be able to defend their own position on this issue. As a result of problem solving, students of the CEI analyze it and produce mental algorithm to solve them.

Meta-subjects are not only an activity but also a part of the training content. Problems, charts, numbers are just a meta-subject content of education [7; 10].

So meta-subject educational content and activities Meta-subject of a student and a teacher are considered according to subject matter and objective activity.

Taking into consideration the abovementioned issues, the textbooks for the high school should apply to the meta-subject broader approach which aims at the complete descriptive perception of the world, encouraging the pupils to meta-activity. Meta-subject results of educational activities is a means of activity applicable both within the educational process and aimed at solving problems in real life situations. The geographical picture of the world, which is one of the segments of the general scientific world, they are formed in the minds of each pupil individually, based on one, several or all subjects. Therefore, the learning process is understood not only as a mastering system of knowledge and skills, but as a process of personal development, acquisition of social experience, the formation of values and key as well as subject competencies. Based on the abovementioned issues we can conclude that learning is expedient to direct the formation of the meta-subject knowledge and the social development of an individual.

Tainging into account the abovementioned issues, modeling geography textbooks should take into consideration the fact that the object of study of geography is spatio-temporal differentiation of the components of the world that requires their disclosure at three levels: global, regional, local ones. These levels must meet the basic content line (direction) of all school geography course. Teaching geography and a textbook as a basic training tool should provide inextricable link between these levels and a basis to understand the main meta-subjects.

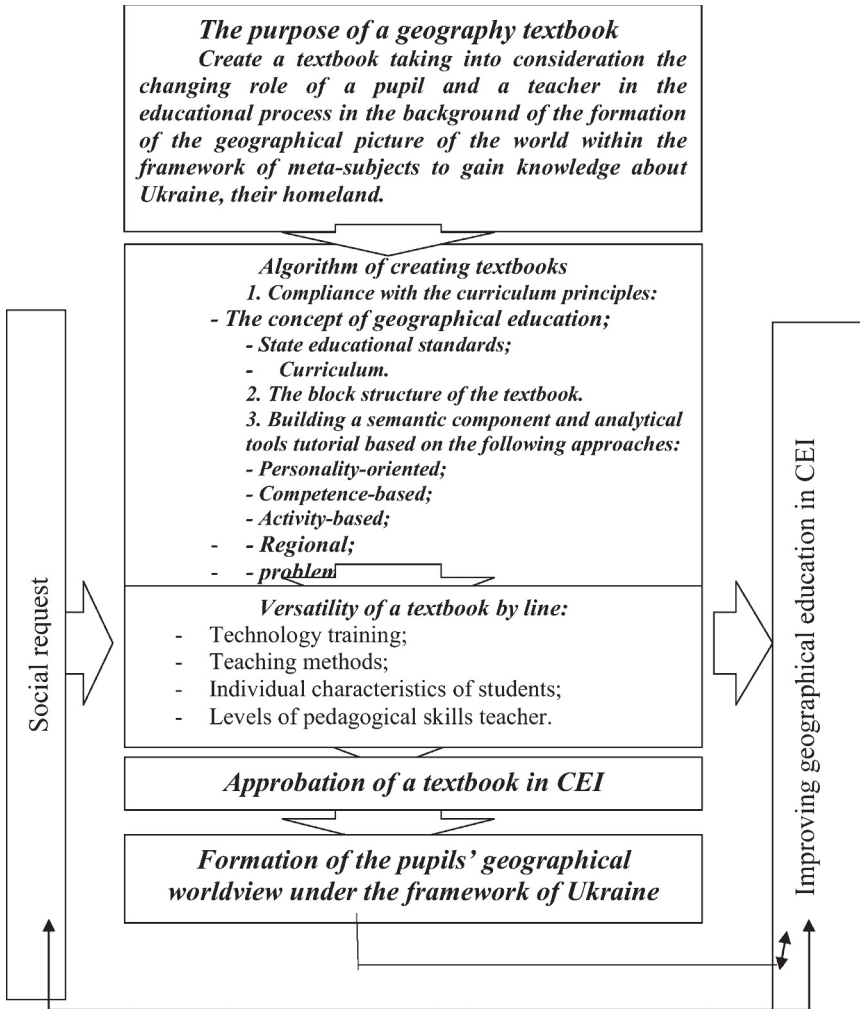


Fig. 1. Methodological model of the geography textbook model creation for the secondary schools

Thus, we consider that the model of a geography textbook for the CEI pupils are formed on the curriculum basis. Besides, an important element is applying to such approaches as personality-oriented, competence-based, activity-based, regional, problem, and metasubject ones (see Figure 1).

Therefore, it is important in terms of acquiring pupils' meta-subject knowledge, their key and subject competencies.

Conclusions and recommendations for the further research. Given the current trends in the educational system of Ukraine we can say that it is a time when both curricula and educational standards should be more flexible and realistic due to the mechanisms of the national curriculum. Since the process of evolution of the state educational standards will continue in the future it is expected that they will be more clearly defining the subject as well as meta-subject principles of schooling; in this respect, it is worth considering some aspects that are related to the school geographical education:

1. Taking into account the current trends in the education system of Ukraine and the fact, the educational area and state standards will continue to be determined by objective principle. It is necessary to distinguish geography (possibly called "Earth Sciences") as an independent branch of the State educational standard. This will allow you to consider this dualistic school subject, rationally allocate training time within the natural, social and humanitarian components of it. In this educational field, it is rational to determine such school subject as economics [4].

2. Due to the progressive development of science, a special emphasis should be put on environmentalizing, economization, informatization, and socialization of the school geography content. It is necessary to take into account the requirements of experience, creativity as well as emotional and value attitude to objects that are considered by geography. Besides, it is necessary to strengthen patriotic education component in geography aimed at the national identification.

3. Structuring the learning content of a textbook must be ensured in the way to observe the subordination in the components of knowledge from the ideas and concepts to the general physiographic patterns and disclosure of social and economic phenomena based on fundamental laws of society in the certain course. Meta-subject components provide geographical content of school education.

4. It is worth to design an updated model of a geography textbook based on the curriculum principles. For this purpose, we apply a method of problem-reserve analysis, through which we will be able to distinguish the priority issues of modern methods of teaching geography to compare the strengths and weaknesses of methodological innovations and provide the search for the external and internal resources to update content and learning tools.

5. The model of new geography textbooks should be constructed on the basis of the social demand on this segment of education, so it should be based on the curriculum basis. It should be developed on the basis of the personality-oriented, competence-based, activity-based, regional, problem and metasubject approaches.

Thus, the text of a textbook on geography and its methodical apparatus will transmit the foundations of humanocentrism and childcentrism.

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Надтока О. Ф.

МЕТАПРЕДМЕТНА РОЛЬ ШКІЛЬНОЇ ГЕОГРАФІЇ

У статті розглянуто питання формування метапредметних знань, які є основою інтелектуального та компетентнісного розвитку особистості. На цьому тлі виокремлено роль географії, що є важливою у розвитку особистості та сприйнятті нею середовища через просторово-часові рамки. Зазначені підходи, певною мірою, висвітлюють роль і місце географії у формуванні метапредметних знань.

Окрім цього, у статті на основі конкретних прикладів виокремлено значення підручника географії та висвітлено його роль у процесі формування метапредметних знань учнів загальноосвітніх навчальних закладів. Автор статті пропонує власний варіант моделі створення підручника географії.

Ключові слова: курикулум; метапредметний підхід; методична модель; методика навчання географії; методичні підходи.

Надтока А. Ф.

МЕТАПРЕДМЕТНАЯ РОЛЬ ШКОЛЬНОЙ ГЕОГРАФИИ

В статье рассматриваются вопросы формирования метапредметных знаний, которые являются основой интеллектуального и компетентностного развития личности. На этом фоне выделяют роль географии, важную в развитии учащихся и восприятии ими среды через пространственно-временные рамки. Такие подходы, в определенной степени, освещают роль и место географии в формировании метапредметных знаний.

Кроме этого, в статье, на основе конкретных примеров, выделено значение учебника географии и освещается его роль для процесса формирования метапредметных знаний учеников общеобразовательных учебных заведений. Автор статьи предлагает собственный вариант модели создания учебника географии.

Ключевые слова: куррикулум; метапредметный подход; методическая модель; методика обучения географии; методические подходы.