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Ensuring Vertical And Horizontal Integration Of The Educational Theasurus According To The Invariant Content When Developing An Individual Educational Trajectory

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Abstract: As an important scientific innovation in the article, pedagogical strategies of the preparation of teachers of the future primary class for the development of competencies on the base and science in students were determined on the basis of adaptive definition of the variable content of the educational thesaurus in the development of an individual educational trajectory, providing vertical and horizontal integration according to the invariant content.

Keywords: Individual learning trajectory, learning thesaurus, invariant content, vertical integration, horizontal integration.

Introduction: According to a meta-analysis of trends in the design of educational content based on a competency approach, it was determined that the organization of an educational environment for the formation and development of competency of learners, while improving the readiness of future teachers for the organization of this process, requires considering not only educational content, but also organizational and structural forms of its presentation.

The formation of a teaching thesaurus of subjects serves to systematize the process of assimilating information in teaching. The issues of the formation of the educational thesaurus of Sciences have been studied in a number of scientific works, in explanatory dictionaries the word thesaurus is arranged in the order of the subject of words related to any field of Science, and between them is semantic (gender-type, synonymic and b.) is defined as an ideographic dictionary that reflects relationships [2].

In recent years, research on an information-based approach to education has been actively conducted. From the perspective of this approach, teaching is considered an information-based process aimed at forming a thesaurus [7].

The concept of thesaurus in pedagogy emerged in the information-semantic model of teaching. The authors define thesaurus in this model as a set of concepts, evaluations, and norms, including action schemes, that are embodied and stored in the individual's memory. According to this model, the formation of a person's consciousness is identical to the formation of his conceptual psychological thesaurus [5].

The literature states that a person's level of knowledge can be assessed through a personal thesaurus [1]. This shows the importance of adaptively defining the variable content of the learning thesaurus in ensuring its vertical and horizontal integration according to the invariant content of the individual learning trajectory.

The article explores the issue of adaptive definition of variable content in ensuring vertical and horizontal integration of the educational thesaurus in the development of individual educational trajectories, and the adaptive definition of variable content in ensuring vertical integration of the educational thesaurus in the

development of individual educational trajectories can be described as follows. Vertical integration in this case is the ability of future teachers to independently determine the assimilation of concepts within a particular subject in their interrelation (according to the level of complexity and associativity) when developing an individual educational trajectory.

The process of influence on the definition of the educational content of integrative processes has a constant, undeniable, systemic, spiral, evolutionary content, which goes beyond the limits of integration within a particular discipline, considering integration at methodological and universal levels, serving to ensure the horizontal integration of the educational thesaurus according to its invariant content. That is, the invariant content of the educational thesaurus reflects not only the interrelation of concepts within a particular subject, but also all horizontal integration (between objects and processes) that affects the process. In particular, the integration of fundamental (vital and scientific) and didactic knowledge provides horizontal integration.

Adaptive labeling of variable content in ensuring horizontal integration according to the invariant content of the training thesaurus serves to prevent conceptual recursion and recurrence, to prevent limiting the number of defined concepts, to develop effective procedures and algorithms for concept detection, data filling and ordering, to find the starting position where concepts can be included. This represents the need to form a learning thesaurus of these subjects.

The concepts introduced ensure the integration of science, education, and production at the methodological level of integration. Ensuring the horizontal integration of the educational thesaurus according to its invariant content serves to reflect real events and facts and to provide the educational process with the necessary educational information. This is based on academic relationships between them. Hence, while adaptive labeling of variable content in providing vertical integration according to the invariant content of a learning thesaurus serves to systematize concepts, ensuring vertical integration ensures the depth, breadth and completeness of concepts, their multifaceted connection with existing concepts.

When applying acquired information to all life activities, one must rely on basic concepts, information, facts, and descriptions. Concepts are elementary objects of knowledge, representing a specific combination of subject and object properties. A particular concept is sometimes studied in different contexts within different disciplines, and attention is paid to the fact that the same concepts can have specific meanings that deviate from the meaning they have in other contexts and in everyday language. This requires ensuring the horizontal integration of the educational thesaurus according to its invariant content in the development of an individual educational trajectory for future primary school teachers.

As the number of subjects studied by students increases and the amount of information in them increases, the balance between known and unknown concepts gradually changes.

The concept of pedagogical thesaurus is considered in the formation of the educational thesaurus of sciences. A.A.Miroshnichenko [6] works within the framework of the technology of compiling a pedagogical thesaurus and emphasizes the feasibility of studying the thesaurus in pedagogy in two groups: personal thesaurus and educational thesaurus. He believes that each person has a certain thesaurus, which is formed throughout their life under the influence of internal and external factors.

A.A.According to Miroshnichenko, a learning thesaurus, is an activity tool aimed at opening up new knowledge, containing all skills, all operations, which helps the learner to organize, correct, organize his activities, which is a tool that elites the learner to the results determined by the minimum effort and time spent. The learning thesaurus primarily includes descriptors - basic concepts and logical operations performed with given concepts [6].

So, A.A.Taking into account Miroshnichenko's opinion and an active approach to education [6], it is advisable to include in the content of the educational thesaurus the basic concepts of the academic discipline — methods of educational activity in one Cator with descriptors (methods of general activity, methods of general activity in a particular discipline, methods of activity specific to individual sections of a particular discipline.

P.Pushkareva [8] proposed a comparative-thesaurus method for compiling a thesaurus of academic subjects.

The essence of this method is as follows: first, the literature used in teaching subjects is sorted, and using this literature, key words and phrases are selected and a list of descriptors is formed. Then this list is compared with the requirements of the DTS, descriptors drawn up from the point of view of teaching each integrative science are approximated and, if necessary, corrections are made, descriptors corresponding to the universal and Universal competencies that need to be formulated in the trainees are sorted.

The thesaurus developed within the framework of the subject helps to describe the concepts that a student should know, the main issues that he or she should be able to solve, and the methods of activity for solving these main issues [4].

The adaptive definition of the variable content of the educational thesaurus in ensuring its vertical integration according to the invariant content when developing an individual educational trajectory is also carried out based on the development of a thesaurus within the subject according to the progressive development of knowledge.

The development of a thesaurus within the framework of the subject depends on the training of future primary school teachers in the structure of educational information and their selection. A learning thesaurus is proposed to develop and provide the specified educational information. The learning thesaurus represents many educational elements and the relationships between them, ensuring vertical integration of the invariant content of the learning thesaurus in the development of an individual learning trajectory.

When forming a learning thesaurus, the teacher must take into account the basic requirements for the content of the subject (State Educational Standards, curricula, etc.), as well as possible directions for differentiating education. As a result, the educational thesaurus includes three components. The first, the invariant thesaurus, is determined by its content with uniform requirements for all students. The second, variable thesaurus complements the invariant thesaurus in accordance with the directions of differentiation of teaching. Third, the adaptive thesaurus ensures that the first two components are adapted to the individual characteristics and learning needs of the learners. The content of the invariant and variable thesaurus is largely determined by the given learning data [6].

The basis of the educational thesaurus is the variable thesaurus. The subjectivity of the teacher's actions in the formation of the variable thesaurus leads to the distortion of the entire educational thesaurus. The teacher's preparation for the formation of an adaptive thesaurus based on their professional activities is developing. When developing a learning thesaurus, the teacher should know the content of fixed and variable thesauruses and their optimal relationship with the personal thesaurus of the learner. That is, the teacher must have knowledge of the structures of educational elements that can be adapted to the individual characteristics and educational needs of learners [6].

In conclusion, it can be said that the subjects are based on the development of basic and subject-specific competencies in students by future primary school teachers,

to view concepts in the field from the perspective of educational goals;

to identify existing principles for organizing concepts;

taking into account that popular thesaurises are not protected from recursion;

it is considered important to develop methods for filling and sorting thesaurus.

Also in the formation of the educational thesaurus of Sciences:

1. Concepts are defined by their parts (for example, a circle is a closed curve whose points are all equidistant from the center; a cube is a six-sided geometric figure whose sides are all equal squares). In this, the student (student) cannot recognize the concept until he understands its parts.

2. Substantiating tuchuncha with a concept of meaning opposite to it (comparison, expression, clarification). In this case, in order to understand the concept of a concept, the user must know (understand, recognize) the opposite concept.

3. Among the various interpretations (definitions, concepts) of a given concept, choose the adequate one (adequate (Latin. adaeguatus — equal, appropriate, exactly the same, similar) — in the theory of knowledge, to obtain the properties and relationships of things and

phenomena in a way that corresponds to their objective content, accurately and appropriately. The human mind is able to adequately reflect objective reality based on social practice [3].) The identification (justification, consideration) of explanations (definitions, concepts).

4. Sometimes the reinterpretation (definition, completion) of concepts is not supported. Their definitions are absolute and cannot be adapted to the level of knowledge of the learner.

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