PROBLEMS OF FORMATION AND DEVELOPMENT OF PERSONALITY

DOI: 10.23888/humJ2019138-50

О РЕАЛИЗАЦИИ ПРИНЦИПА ИНТЕГРАЦИИ В ОРГАНИЗАЦИИ ОБУЧЕНИЯ В МЕДИЦИНСКОМ ВУЗЕ (НА ПРИМЕРЕ ПРЕПОДАВАНИЯ ДИСЦИПЛИНЫ «ЛАТИНСКИЙ ЯЗЫК»)

Ельцова Л.Ф., Ельцов А.В.

*Рязанский государственный медицинский университет
имени академика И.П. Павлова*

Аннотация. В статье рассматриваются вопросы организации обучения с использованием интегративного подхода, который предполагает целостность и системность процесса обучения, позволяет учитывать существующие межпредметные и внутрипредметные связи. Необходимость применения интегративного подхода в организации обучения продиктована потребностью современного российского общества в компетентных специалистах, способных решать разнообразные задачи с учётом инновационных изменений происходящих во всех сферах деятельности, стремящихся к саморазвитию, обладающих интегративным стилем мышления.

Даётся обоснование необходимости использования интегративного подхода в процессе организации преподавания в медицинском вузе, обусловленное тем, что одной из главных задач медицинского образования является формирование клинического мышления, которое невозможно без понимания единства материального мира, взаимосвязи и взаимообусловленности всех явлений, фактов и процессов.

Описаны возможности дисциплины «Латинский язык» в реализации принципа интеграции в организации обучения в медицинском вузе. На примере преподавания латинского языка и медицинской терминологии описываются существующие хронологические (предшествующие, сопутствующие и перспективные) и содержательные (фактические, понятийные и теоретические) межпредметные связи. Уделено внимание внутripредметной интеграции, которая базируется на установлении смысловых и содержательных связей между разделами и темами учебной дисциплины и дает возможность организовать её изучение как открытой системы.

Указывается на необходимость уделять внимание не только интеграции содержания, но и интеграции методик, принципов, методов и подходов. Рассматриваются вопросы использования в обучении деятельностного подхода с учетом внутripредметной интеграции, для решения проблем эффективного усвоения знаний и формирования обобщенных умений во время выполнения учебных заданий.

Ключевые слова: интегративный подход, организация обучения, медицинская терминология, межпредметные и внутripредметные связи.

THE IMPLEMENTATION OF THE PRINCIPLES OF INTEGRATION AT MEDICAL UNIVERSITIES (THE CASE OF A COURSE OF THE LATIN LANGUAGE)

Yeltsova L.F., Yeltsov A.V.

Ryazan State Medical University named after academician I.P. Pavlov

Abstract. The paper deals with the organization of professional training that uses an integrative approach, thus contributing to integrity and consistency of the learning process, and activating interdisciplinary and intradisciplinary relationships. The need to use an integrative approach in the organization of training is dictated by the modern Russian socie-

ty's demand for competent specialists who are able to solve various tasks, taking into account innovative changes occurring in all areas of activity, seeking self-development, and possessing integrative thinking.

We define a rationale for the use of an integrative approach in the organization of teaching in a medical school, considering the fact that one of the main tasks of medical education is to form clinical thinking, which is impossible without understanding the unity of our material world and the interdependence of all phenomena, facts and processes.

We describe the potential of the Latin language as a discipline in deeper integration of curricula in medical schools. Using the course of Latin and medical terminology as a case, we look into the effective temporal (previous, simultaneous, and prospective) and thematic (actual, conceptual, and theoretical) interdisciplinary connections. As for intra-disciplinary integration, it is based on the establishment of semantic and meaningful links between sections and topics of the academic discipline proper, making it possible to organize its study as an open system.

The research points out the need to pay attention not only to the integration of the content, but also the principles, methods, and approaches. The article considers the issues of using the activity approach in teaching, taking into account intra-disciplinary integration, to effectively master knowledge and to form major skills required while performing educational tasks.

Key words: integrative approach, organization of professional training, medical terminology, interdisciplinary and intradisciplinary relationships.

All spheres of life in contemporary Russia undergo constant innovative changes. There is a growing demand for highly-competent professionals, whose way of thinking enables them to discern and solve problems of varying degree of novelty and complexity, to realize their creative potential both to their own advantage and to the advantage of public welfare, to adapt quickly to changing conditions. A professional nowadays ought to be

aware of the necessity for constant personal growth, to be a skilled researcher, and to possess integrative thinking.

The system of higher education, being a major mechanism of development in modern society, should meet all contemporary requirements. A higher school lecturer often encounter serious problems while attempting to bring home to the students the significance of the specific discipline, the important role it plays in the modern world. Higher school development should be aimed at enhancing educational value of each subject taking into account general scientific and cultural aspects. The contemporary organization of higher education favours an approach that allows students at the same time to study the essence of processes and phenomena and see the possibility of their practical application in their professional carrier. Classroom activities should develop the skills of conducting research, of making conclusions and charting drafts of a project, of accessing critically obtained results.

Medicine is one of the most rapidly developing branches of science. In order to produce highly qualified specialists, medical education is based on the systemic principle, which means that the basic educational components must be interrelated and interdependent both in structure and content. In medical education, the integrative approach is of special importance, its main objective being to foster medical judgement, which a doctor should develop further in the course of his/her professional activity. This judgement is developed on the basis of the idea of unity of the material world, interconnection and interrelation of all facts, processes and phenomena.

The modern stage of development of higher education is characterized by bilateral processes of integration and differentiation. On the one hand, any academic subject develops through deeper penetration into the essence of objects and laws studied, yet on the other hand, it develops as an integrated network of sciences, which are mutually enriched by ideas and methods of cognition. That is why educational process should be organized on the basis of an integrative approach taking into account active interdisciplinary and intradisciplinary relationships, paying attention not only to integration of the content, but to

integration of educational techniques at the level of ideas, principles, methods and approaches.

Interdisciplinary relationships may be based on chronology or content. Temporal relationships are differentiated by time characteristics, and we can single out relationships of precedence, simultaneity and perspective. Relationships of precedence are determined by connection of learning material under discussion with notions analysed before, also studying other subjects. For example, in their Latin classes, medical students are going to require knowledge of their native language and the foreign language studied in the secondary school. Teaching Latin grammar becomes easier if a student is acquainted with the grammar of Russian, as both languages are synthetic and have similar noun case systems. A student who knows Russian does not require long explanation of the phenomenon of “noun-adjective agreement”. Besides, the shape of the majority of Latin books is familiar to those who study a foreign language, as the Latin alphabet is used in many European languages.

Relationships of simultaneity reflect mutual influence of objects studied in different academic subjects at the same time. For example, studying anatomy is impossible without knowing Latin, as the international anatomical nomenclature uses the Latin alphabet, Latin phonetics and grammar. Learning any European foreign language at a medical higher educational establishment aims at developing skills of intercultural professional communication, and it will not be effective enough without taking into consideration the role of Latin borrowings in the medical lexicon. At present, we still preserve the tradition of using and coining scientific terms on the basis of Greek and Latin roots, that is why Greek and Latin terms form the basis for the modern language of medicine.

Prospective relationships are aimed at using the material of a course under study later on, while mastering other subjects. Thus, we can see that teaching Latin in medical universities is based on a systemic terminological principle, aimed at both helping students to study their major subjects and teach them to find their way in the terminological variety of the language of medicine.

Thematic relationships are differentiated by informational characteristics, so we can single out actual, conceptual, and theoretical relationships. Actual relationship display integration at the level of facts, for example while teaching anatomical terms, we can use a spatial approach. While studying Latin anatomical terminology, special attention is given to verbal expression of spatial concepts, to studying of frequently used phrase terms, that denote location, size, form and interconnection of human body organs. The same approach is used in anatomy, which is explained by the character of this subject, which studies the shapes and morphology of the human body and organs that constitute it, in relation to their function and development.

Conceptual relationships function at the level of notions. Studying the basics of terminology is a foundation for developing professional communicative competence, as a professional should be able to use scientific terms correctly and to understand information encoded in them. A course of Latin is aimed at teaching students basic subsystems of medical terminology: anatomical terminology, clinical terminology and pharmacological terminology. In the process of studying various general medical and specialized terms, there gradually appear notions that are common for different subjects. Knowing the basics of terminology lays a foundation for effective communication while studying in a medical high school, as the term is the unit which conveys the most important information, the most essential knowledge.

Theoretical relationships are integrated at the level of laws and theories. For example, studying terminology as a science and of language functions in professional communication in a medical school is conducted on the basis of general laws and theories, discussed in parallel at the lessons of Latin, lessons of a foreign language, lessons of the Russian language and culture. Transposition of knowledge from one academic subject to another convinces students of the universal character of fundamental scientific laws.

Interdisciplinary integration finds its continuation at the intradisciplinary level, relying on it, in fact. This ensures consistency within the subject, making an academic discipline both a differentiated and integrated system. The establishment of semantic

and meaningful connections between sections and themes of a discipline makes it possible to organize its study as a system that is open to new connections. Various types of activities will often complement one another, thus enhancing formation of communication skills and providing greater autonomy at work.

The activity approach, widely used in teaching, taking into account intra-disciplinary integration, allows not only effective learning for all students, but also developing universal skills while performing their learning tasks. Study of medical terminology requires a unified approach through identification of common activities/ and at the initial stage of developing generalized approaches to activity, the teacher's role is all-important. Knowing the generalized content of the activity, s/he will encourage students to perform specific actions in a required sequence. An essential element of this stage is the task of identifying this sequence of operations, recognizing similar situations, and transposing a selected sequence of operations to other tasks.

Terminological systems of the medical science use a unified terminological apparatus: high-frequency lexemes, terms, certain means and models of word-formation, etc. Therefore, an important stage in the study of Greek and Latin medical terminology is assimilation of several structural-semantic models of construction and frequent morphemic components. At the initial stage, the teacher will describe the most productive models and introduce students to frequent structural components (term elements) of medical terms, providing examples. As a rule, the terms quoted as examples will already be familiar to the students. For example, a regular structural-semantic model may be presented like this: "organ (tissue, part of the body) + disease / pathology", to denote names of inflammatory diseases or processes, where the seme of "inflammation" is expressed by the Romanized Greek suffix "-itis" (in Russian: -it). In such terms, the producing base usually names the body organ, indicating the location of the inflammatory process [1]:

gastritis (*gastr- stomach + -itis inflammation*) – Rus.: gastritis, inflammation of the gastric mucosa;

bronchitis (*bronc- bronchus* + *-itis inflammation*) – Rus.: bronchitis, bronchial inflammation.

At this stage, students learn to recognize structural models and analyze names of diseases, searching for previously presented elements of terminology. For example, in terms of encephalitis, meningitis, tracheitis, pancreatitis, bursitis, etc., the students should identify the suffix “-it” and components that denote the organ, that is, determine the location of the inflammatory process.

At the second stage, the students will identify the generalized content of this activity and practice, to further comprehend it and use it in various tasks. The trainees will be given unfamiliar terms and instructed not only to determine the model for constructing a term lexeme, but also to explain its meaning. The student will not come up with a consistent definition of the items yet, since this is hardly possible for a fresher student, but s/he can formulate the general sense of the term. For example,

haemangioma (*haem- blood, angi- vessel, -oma neoplasm*) – Rus.: a benign tumour developing from blood vessels;

arthrosis (*arthr- joint, -osis disease*) – Rus.: degeneration of bone joints.

At the third stage, the students will learn to plan and carry out similar activities in other tasks that are not yet known to them. Their assignment will be to create terms with a given meaning; and they will independently select the necessary term elements and name the word-building models, for example,

Medication (treatment) with pharmacological agents – *pharmaco (medicine) + therapia (treatment) = pharmacotherapy*;

Accumulation of air or other gases in pleural cavity – *pneumo (air, gas) + thorax (chest) = pneumothorax*.

Thus, educational integration can be effectively implemented in the process of organizing Latin studies in the medical school. The use of an integrative approach presupposes integrity and consistency of the learning process, taking into account interdisciplinary and intradisciplinary relations, reflecting the relationship of the content of disciplines and cor-

responding teaching methods, which contributes to the formation of an integrated thinking style, the professional and personal growth of students.

No conflict of interests observed.

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СВЕДЕНИЯ ОБ АВТОРАХ:

Ельцова Любовь Федоровна – кандидат филологических наук, доцент, заведующий кафедрой латинского языка и русского языка, Федеральное государственное бюджетное образовательное учреждение высшего образования «Рязанский государственный медицинский университет имени академика И.П. Павлова» Министерства здравоохранения Российской Федерации, 390026, г. Рязань, ул. Высоковольтная, 9, e-mail: elf-lat@rambler.ru

Ельцов Анатолий Викторович – доктор педагогических наук, профессор, профессор кафедры математики, физики и медицинской информатики, Федеральное государственное бюджетное образовательное учреждение высшего образования «Рязанский государственный медицинский университет имени академика И.П. Павлова» Министерства здравоохранения Российской Федерации, 390026, г. Рязань, ул. Высоковольтная, 9, e-mail: eltsov17@rambler.ru

INFORMATION ABOUT AUTHORS:

Yeltsova Liubov Fedorovna – PhD (Philology), Associate Professor, Head of Latin and Russian Chair, Federal State Budgetary Educational Organization of Higher Education “Ryazan State Medical University named after academician I.P. Pavlov” of the Ministry of Healthcare of the Russian Federation, 390026, Ryazan, Vysokovoltnaya street, 9, e-mail: elf-lat@rambler.ru

Yeltsov Anatoliy Viktorovich – PhD (Education), Professor, Chair of Mathematics, Physics and Medical Information Technology, Federal State Budgetary Educational Organization of Higher Education “Ryazan State Medical University named after academician I.P. Pavlov” of the Ministry of Healthcare of the Russian Federation, 390026, Ryazan, Vysokovoltynaya street, 9, e-mail: eltsov17@rambler.ru

Дата поступления / Paper received: 25.03.2019

Дата принятия в печать / Paper accepted: 27.03.2019

ССЫЛКА ДЛЯ ЦИТИРОВАНИЯ:

Ельцова Л.Ф., Ельцов А.В. О реализации принципа интеграции в организации обучения в медицинском вузе (на примере преподавания дисциплины «Латинский язык») [Электронный ресурс] / Л.Ф. Ельцова, А.В. Ельцов // Личность в меняющемся мире: здоровье, адаптация, развитие: сетевой журн. 2019. Т. 7. № 1 (24). Режим доступа: <http://humjournal.rzgmu.ru/art&id=361> (дата обращения: чч.мм.гггг).

REFERENCE FOR CITING:

Yeltsova L.F., Yeltsov A.V. O realizacii principa integracii v organizacii obucheni-ja v medicinskom vuze (na primere prepodavanija discipliny «Latinskij jazyk») [The implementation of the principles of integration at medical universities (the case of a course of the latin language)] [Electronic resource] / L.F. Yeltsova, A.V. Yeltsov // *Lichnost' v menyayushchemsya mire: zdorov'ye, adaptatsiya, razvitiye: setevoy zhurnal [Personality in a changing world: health, adaptation, development: network journal]*. 2019. V. 7. No. 1 (24). Access mode: <http://humjournal.rzgmu.ru/art&id=361> (date of reference: hh.mm.yyyy).