



Bukovinian State
Medical University

ВДНЗ України «Буковинський
державний медичний університет»



Ștefan cel Mare University
of Suceava

Сучавський університет імені
Штефана чел Маре

АКТУАЛЬНІ ПИТАННЯ СУСПІЛЬНИХ НАУК ТА ІСТОРІЇ МЕДИЦИНИ

AKTUALINI PYTANNIA SUSPILINIH
NAUK TA ISTORII MEDITSINI
(APSNIM)

CURRENT ISSUES OF SOCIAL
STUDIES AND HISTORY OF
MEDICINE

АКТУАЛЬНЫЕ ВОПРОСЫ
ОБЩЕСТВЕННЫХ НАУК
И ИСТОРИИ МЕДИЦИНЫ

ENJEUX ACTUELS DES SCIENCES
SOCIALES ET DE L'HISTOIRE DE
LA MEDECINE

Спільний українсько-румунський науковий журнал
Joint Ukrainian-Romanian scientific journal

2018, 4 (20)

<i>Журнал засновано в 2013 р. Перереєстровано 27.07.2015 р. у Міністерстві юстиції України (Свід. № 21495-11295ПП – Сер. КВ)</i>	<i>Journal started publishing in 2013 year. Re-registered in the Ministry of Justice of Ukraine 27.07.2015 p (Cert.of registr. № 21495-11295ПП – Ser. KB)</i>
<i>Журнал включено до Переліку наукових фахових видань України з історичних (Наказ МОН України № 515 від 16.05.2016р.) та філологічних наук (Наказ МОН України № 1222 від 07.10.2016 р.)</i>	<i>Journal is on the List of Scientific Professional publication of the Ministry of Education and Science of Ukraine, entitled to publish main results of dissertations in different fields of Historical sciences (order № 515 of 16.05.2016) and Philological sciences (order № 1222 of 07.10.2016)</i>

President: Dr. of Medicine, Prof. **Taras Boychuk** (Bukovinian State Medical University)

Editors-in-Chief: Dr. of History, Prof. **Stefan Purici** (Ștefan cel Mare University of Suceava)
Dr. of History, Prof. **Antoniuy Moysey** (Bukovinian State Medical University)

Executive Editors: Ph.D., Assoc. Prof. **Antonina Anistratenko**, responsible for the electronic version of the journal
Ph.D., Lecturer **Lilia Roman** (Bukovinian State Medical University)
Ph.D., Lecturer **Harieta Mareci Sabol** (Ștefan cel Mare University of Suceava)

Editors Assistants: Ph.D., Associate Prof. **Inha Tymofijchuk** (Bukovinian State Medical University)
Ph.D., Lecturer **Vasile M. Demciuc** (Ștefan cel Mare University of Suceava)

Executive secretaries: Lecturer **Iryna Kaizer**, Lecturer **Tetyana Nykyforuk**

Responsible for the electronic version on the OJS platform and DOI identifier: Liliya Petrichko
Responsible for the Bibliographic description of the references: Svitlana Tulevska

INDEXING: Index Copernicus – 73,78 (2016) | Infobase Index – 2,8 (2016) | MIAR – 2,8 (2016) | SRJIF – 3,98 (2017) | JICIndex – 0,110 (2017)

Journal was registered in the international scientometric and bibliographical database *Index Copernicus*, *Directory of Open Access Journals (DOAJ)*, *Ulrichs Web*, *Erih Plus*, *Scientific Indexing Services*, *eLibrary*, *Index of Turkish Education*, *Infobase Index*, *OAJI*, *World Cat*, *Directory of Research Journals Indexing (DRJI)*, *Sherpa/Romeo*, *Scientific Journal Impact Factor (SJIF)*, *Information Matrix for the Analysis of Journals (MIAR)*, *Journals Factor (JF)*, *International Institute of organized research (I2OR)*, *Journals Impact Factor*, *International Innovative Journal Impact Factor (IIJIF)*, *Rootindexing*, *Science Research Journal Impact Factor (SRJIF)*, *JICIndex*, was published in database: *Google Scholar*, *SCIARY WorlWide Elibrary (SUA)*, *Central and Eastern European Online Library (Germany)*.

Editorial Board:**Social sciences:**

Associate Prof. **Gennadii Kazakevych**, Dr. of History, Taras Shevchenko Kyiv National University (Ukraine);
 Prof. **Michel Kerautret**, Dr. of History, Ecole des Hautes études en sciences sociales (Paris, France);
 Prof. **Zenon Kohut**, Dr. of History, Alberta University (Edmonton, Canada);
 Prof. **Oleksandr Kurochkin**, Dr. of History, M. Rylskiy Institute of Art, Folklore and Ethnology, Academy of Sciences (Kyiv, Ukraine);
 Chief Research Worker **Elisaveta Kvilincova**, Dr. of History, Institute of Cultural Heritage, Academy of Sciences (Chisinau, R. Moldova);
 Prof. **Yuri Makar**, Dr. of History, Academician of the Ukrainian Academy of History, Yuriy Fedkovych Chernivtsi National University (Ukraine);
 Senior Research Associate **Paul Meerts**, Dr. of History, Institute of International Relations Clingendael (The Hague, Netherlands);
 Prof. **Olimpia Mitric**, Dr. of History, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Georghe Onișor**, Dr. of History, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Associate Prof. **Florin Pintescu**, Dr. of History, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Academician **Stepan Pavliuk**, Dr. of History, Director of the Institute of Ethnology, Academy of Sciences (Ukraine);
 Academician **Anna Skrypnyk**, Dr. of History, Director of the Institute of Art Studies, Folklore and Ethnology, Academy of Sciences (Kyiv, Ukraine);
 Prof. **Andrzej Wawryniuk**, Dr. of History, Państwowa Wyższa Szkoła Zawodowa w Cholmie (Poland);
 Prof. **Vitaliy Dokash**, Dr. of Philosophy, Yuriy Fedkovych Chernivtsi National University (Ukraine);
 Prof. **Mychailo Marchuk**, Dr. of Philosophy, Yuriy Fedkovych Chernivtsi National University (Ukraine);
 Prof. **Sorin Tudor Maxim**, Dr. of Philosophy, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Diego Sanches Mecka**, Dr. of Philosophy, National University of Distance Education (Madrid, Spain);
 Assoc. Prof. **George Neamtu**, Dr. of Philosophy, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Ivan Ostaschuk**, Dr. of Philosophy, Bukovinian State Medical University, M.P. Dragomanov National pedagogical University (Ukraine);
 Assoc. Prof. **Bogdan Popoveniuc**, Dr. of Philosophy, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Assoc. Prof. **Nina Zoriy**, Ph. D. of Philosophy, Bukovinian State Medical University (Ukraine);
 Prof. **Bertrand Badiou**, Dr. Of Philosophy, Ecole normale supérieure (Paris, France);
 Prof. **Piotr Borek**, Dr. of Philology, Head of the Polish Philology Institute Krakiv Pedagogical University (Poland);
 Prof. **Mircea A. Diaconu**, Dr. of Philology, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Assoc. Prof. **Evelina-Mezalina Graur**, Dr. of Philology, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Adam Falowski**, Dr. of Philology, Head of the East Slavic Philology Institute Jagiellonian University (Poland);
 Prof. **Roma Franko**, Dr. Of Philology, University of Saskatchewan (Canada);
 Assoc. Prof. **Simona-Aida Manolache**, Dr. of Philology, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Hanna Martynova**, Dr. of Philology, Bohdan Chmelnytskyi Cherkasy National University (Ukraine);
 Prof. **Nagy Rodica-Măriora**, Dr. of Filology, Head of the Scientific library in Ștefan cel Mare University of Suceava;
 Prof. **Antoaneta Olteanu**, Dr. of Philology, Bucharest University (Romania);
 Assoc. Prof. **Oleksandr Rak**, Ph. D. of Philology, Bukovinian State Medical University (Ukraine);
 Prof. **Nataliya Rusnak**, Dr. of Philology, Yuriy Fedkovych Chernivtsi National University (Ukraine);
 Chief Research Worker **Anna-Maria Sorescu-Marinkovich**, Dr. of Philology, Balkan Institute at Serbian Academy of Sciences and Art (Belgrad);
 Assoc. Prof. **Nadia Laura Serdenciuc**, Dr. of Educational Sciences, Ștefan cel Mare University of Suceava (Suceava, Romania).

History of medicine:

Assoc. Prof. **Carmen Cornelia Bălan**, Dr. of Psychology, Ștefan cel Mare University of Suceava (Suceava, Romania);
 Prof. **Vasyl Cheban**, Dr. of Medicine, Bukovinian State Medical University (Ukraine);
 Dr. med. Dipl.-Psych, MBA, **Gerhardt Dammann**, Chief of Psychiatrische Klinik Münsterlingen and the psychiatric services Thurgau (Switzerland);
 Prof. **Alexander Fediv**, Dr. of Medicine, Bukovinian State Medical University (Ukraine);
 Prof. **Oleksandr Ivashiuk**, Dr. of Medicine, Bukovinian State Medical University (Ukraine);
 Prof. **Yuzef Podguretski**, Dr. of Psychology, Opole University (Poland);
 Prof. **Alfred Prits**, Dr. of Psychology, Pres. of World Psychology Union, Head of Psychotherapy and Psychoanalysis Institute in Vienna (Austria);
 Prof. **Viktor Tashchuk**, Dr. of Medicine, Bukovinian State Medical University (Ukraine);
 Prof. **Dmytro Tyntyuk**, Dr. of Medicine, Chisinau State University of Medicine and Pharmacy N.Testemitsu (R. Moldova);
 Prof. **Bohdan Vasylevskiy**, Dr. of Medicine, Chief of Psychosomatik Institute (Warsaw, Poland);
 Prof. **Konstantin Yetso**, Dr. of Medicine, Chisinau State University of Medicine and Pharmacy N.Testemitsu (R. Moldova).

Актуальні питання суспільних наук та історії медицини. Спільний українсько-румунський науковий журнал. Серія "Історичні науки" || Current issues of Social studies and History of Medicine. Joint Ukrainian-Romanian scientific journal. Series "Historical science"/ Редколегія: Т. Бойчук, Ш. Пуріч, А. Мойсей. Чернівці–Сучава: БДМУ. 2018. № 4 (20). 142 с.

ISSN: 2311-9896; EISSN 2411-6181

The actual problems of world history, history of Ukraine, history of religion, ethnogenesis and traditional culture of peoples, archeology, philosophy, linguistics, literature and history of medicine are investigated in the journal. The journal is the international edition according to the sphere of extension and geography of the authors.

The publication is aimed at the higher educational institutions, academic institutes, and cultural institutions staff.

ББК 60я53+5г.я43

The journal is published in paper and electronic version with the resolution of the academic council of Higher State Educational Establishment of Ukraine "Bukovinian State Medical University" (Decision №4. Date 22.11.2018).

The authors are responsible for the selection, accuracy of given information, citations, proper names, geographical names and other data.

Publishing: 2-4 issues a year. Languages: Ukrainian, Russian, English, French.

Address: Ukraine, 58000, Chernivtsi, Heroiv Maidanu str., 3, Department of Social Sciences and Ukrainian Studies.
 Tel.: (0372) 520871. **E-mail:** snim@bsmu.edu.ua; society@bsmu.edu.ua

The electronic version of the journal is available on the Web sites: <http://apsnim.bsmu.edu.ua>; <http://doaj.org> (Directory of Open Access Journals); <http://www.irbis-nbuv.gov.ua> (Scientific periodicals of National V. Vernadskij library web-site); <http://scholar.google.com.ua> (Google Scholar); <http://e-apsnim.bsmu.edu.ua> (OJS).

**ІСТОРИКО-ЦІЛЬОВИЙ ПІДХІД У
ПРИКЛАДНОМУ ВИВЧЕННІ АНАТОМІЇ ЛЮДИНИ**

**Наталія НАВАРЧУК, Олександра ГУЗІК,
Олександра-Марія ПОПЕЛЮК,
Наталія РЕШЕТИЛОВА, Антоніна АНІСТРАТЕНКО**
ВДНЗ України «Буковинський державний медичний університет»,
м. Чернівці (Україна)
navarchuk.nata@bsmu.edu.ua, huzik.oleksandra@bsmu.edu.ua,
alexandra.popelyuk@bsmu.edu.ua, reshetilova.nataliia@bsmu.edu.ua

**HISTORICAL AND TARGETED APPROACH
TO APPLIED STUDY OF HUMAN ANATOMY**

**Natalija NAVARCHUK, Oleksandra GUZIK,
Oleksandra-Maria POPELYUK, Nataliia RESHETILOVA,
Antonina ANISTRATENKO**

Higher State Educational Establishment of Ukraine
„Bukovinian State Medical University”, Chernivtsi (Ukraine)
RESEARCHER ID C-9896-2017, ORCID ID 0000-0002-6183-5373
RESEARCHER ID C-9343-2017 ORCID ID 0000-0002-9829-8647
RESEARCHER ID E-5465-2017 ORCID ID 0000-0003-3961-7529
RESEARCHER ID C-8276-2017 ORCID ID 0000-0001-5697-0733

Історико-целевий підхід в прикладному вивченні анатомії. Анатомія людини-це і наука, і мистецтво. В анатомічній науці формуються і визначаються чіткі кількісні характеристики морфологічних структур тіла людини на різних рівнях організації, реалізуються специфічні методичні і методологічні прийоми. Анатомія як мистецтво – це майстерство викладача, неповторність інтерактивних форм практичних занять. Зостається відкритим питання про ефективність технології дистанційного навчання, оскільки очевидні переваги, так і непереможні недоліки, так як дистанційні і комп’ютерні технології не можуть замінити головного – живого, безпосереднього спілкування з викладачем. Везалій, який відомий не тільки як батько сучасної анатомії, але і тим, що ввів революційні методи викладання. Він підкреслював важливість практичного підходу, який включає уважливе спостереження, аналіз і перевірку, а також постійну переоцінку теорії, враховуючи нові факти. Інноваційні методи дослідження в сукупності з традиційними педагогічними технологіями дозволяють оптимізувати навчальний процес. Совершенствуються системи викладання предмету анатомії включає в себе і організацію навчального процесу, що відповідає сучасним вимогам підготовки фахівців, формування у студентів стійкого інтересу і інтерактивного відношення до процесу навчання. В викладанні виникає основною метою не тільки орієнтація на засвоєння визначеної кількості знань, але і розвиток особистості студента, його пізнавальних і творчих здібностей. Це стає можливим при участі студентів в роботі наукового колективу, виступаючи на наукових конференціях.

Ключові слова. Інноваційні технології, педагогічні технології, анатомія, науковий колектив.

Introduction. Human anatomy is a science and art. Clear quantitative characteristics of morphological structures of the human body at different levels of organization, implemented specific methodical and methodological techniques are formulated and defined in anatomical science. Anatomy as an art is the skill of the teacher that provides the uniqueness of the interactive forms of practical classes. The effectiveness of a distance learning technology is an open question, since there are obvious advantages and undoubted disadvantages, as remote and computer technologies cannot replace the most important thing - a direct communication with the teacher¹. Vesalius, who is known not only as the father of modern anatomy, but also he introduced revolutionary teaching methods. He emphasized the importance of a practical approach, which includes careful observation, analysis and verification, as well as a constant overestimation of the theory in the light of new facts. Having started

work, Vesalius immediately changed the existing method of teaching anatomy. He obtained permission to produce autopsies and provided students with study guides of his own work. As a teacher, Vesalius constantly demanded from the audience the accuracy in studying nature. He reminded us of the importance of each, even a small part of the body, to call for a comprehensive coverage of the phenomenon under study and its in-depth analysis. Students were impressed by his critical attitude to the legacy of the past, the accuracy of the studies, the desire to prove the judgments, and the facts extracted personally. Besides, the young teacher had an attractive appearance, was charming, spoke temperamentally and strongly. Contemporaries noted the confident movement of Vesalius, the eyes burning with passion, the willingness to enter into the discussion, immediately introducing incontrovertible facts. All these qualities provided a high profile and excellent reputation among the listeners².

¹ Artyukhina A.I., Agaev V.A., Gorelik E.V., Bagry E.G., Chekanin I.M., Fedotova Yu. M., Orekhov S.N., Matveev S.V. “Metodologicheskie principy i innovacionnye metody prepodavaniya discipliny anatomiyi cheloveka” [Methodological principles and innovative methods of administration of disciplines of anatomy of a human], *Nauchnoe obozrenie. Pedagogicheskie nauki* [Scientific Review. Pedagogical sciences], 2016, № 6, P. 31–35 [in Russian].

² Mesquita, E. T., Souza Júnior, C. V., Ferreira, T. R. “Andreas Vesalius 500 years-A Renaissance that revolutionized cardiovascular knowledge”, *Revista brasileira de cirurgia cardiovascular: orgao oficial da Sociedade Brasileira de Cirurgia Cardiovascular*, 2015, № 30 (2), P. 260–265.

Vesalius first described the structure of the human body on the basis of facts personally established by him by means of autopsy. At that time conclusions about the structure of the human body were made on the basis of the works of Galenus. Vesalius appreciated his work, translated and prepared them for publication, but pointed to the erroneous nature of many positions. In the work "On the structure of the human body," he corrected more than 200 errors of the Roman doctor³.

The purpose of the recent article is to analyze the selection of the methods of anatomy teaching and to ensure their opportunities and efficiency for mentoring students to the terms and conditions of the educational process in a medical university.

The material, results and discussion. The peculiarities of interaction between students and teachers during the educational process served the material for the studying. Innovative research methods, in combination with traditional pedagogical technologies, can optimize the educational process. Improving the teaching system of the subject of anatomy includes the organization of an educational process that meets the modern requirements of training specialists, the formation of a stable interest among students and an interactive attitude to the learning process. In teaching, the main goal is not only the orientation on the assimilation of a certain amount of knowledge, but also the development of the student's personality, his cognitive and creative abilities. This becomes possible with the participation of students in the work of a scientific group, presentations at scientific conferences. The work of the student's scientific group has a diverse and multifaceted character and includes the organization of thematic lectures from specialists in order to combine fundamental knowledge from different disciplines to understand the etiology and mechanisms of development of pathological processes in the patient, age characteristics and patterns of organism development, molecular mechanisms of regulation. After the lecture session, practical skills are made: preparation, suturing and tying knots, interpretation and study of computer and nuclear magnetic resonance tomography, ultrasound images, which, along with the study of similar anatomical preparations, allows us to make a more complete picture of the structure of the human body, facilitates perception and promotes increased motivation for learning. While presenting the lecture material, the traditional method, as well as the innovative method, is used: "lecture by two". The lecture is conducted in the form of reading lectures from different points of view or on complementary. The method of teaching "a lecture by two" requires from teachers the possession of the subject matter, in addition to the main content of the topic, a more creative approach in preparing for the lecture. The precondition for conducting lectures is the selection of teachers, their psychological and intellectual compatibility, roughly equal level of competence, their readiness to use this method of training. The method of reading a similar lecture consists of the following stages of preparation: 1). choose the appropriate topic 2). the selection of two teachers, both in terms of the style of thinking and the way of

thinking. 3). developing a script for reading lectures (content blocks, distributed in time). Two lecturers write a co-ordinated script, which reflects problems in this topic of lectures, distributes the time and role of lecturers and predicts the perception of this lecture by students. The lecture is actually a mini-game, a theater of two actors, which creates positive emotions and increases the interest of students in learning. When lecturing by the method of "lecture together", the speeches of the lecturers are natural and indisputable, with the possibility of improvisation⁴.

Before Leonardo da Vinci, the representatives of medicine were little interested in anatomical drawings, and many of them completely denied their need on the pages of books, believing that they distract students from the text. But all the drawings of Leonardo were so convincing that no one else could deny the significance of drawings in the teaching of medicine and anatomy. In the creation of anatomical drawings Leonardo adhered to a strict sequence. "Before you make muscle, draw in their place the yarns showing the positions of these muscles, which will end with the ends of the muscles attached to their bones, and this gives you the most convenient notion if you want the muscles to portray everything, one above the other, but if you're doing it differently, your drawing will be confused." Engaging in mechanics and trying to accurately convey human movements, Leonardo da Vinci devotes much attention to the study of the muscular system and the structure of the skeleton: "Nature can not make animals move without mechanical instruments ...". Probably, it explains why Leonardo with such scrupulousness transferred images of muscles of hands, legs, necks. For the same reason, probably, the images of the internal organs and, in particular, the brain are given schematically. In comments to his records, he also points out the functions of the peripheral nerves, highlighting motor and sensitive portions. Leonardo attaches particular importance to the nerves of the fingers and toes, emphasizing their great functional importance⁵. For a better reproduction and understanding of a complex subject such as muscle and upper limb inertia, there are many mnemonic methods that are valuable auxiliary techniques in learning. Therefore, it is necessary to apply and provide information about mnemonic, how it works and how it can help to study the material. Students who understand the nature and value of mnemonics can feel the need to develop their own mnemonic and plan which one to choose from in the future. For example, for the study of the places of origin and the attachment of the muscles, the "anatomical fairy tale" is told. The Princess of Pronator Teres (m. Pronator teres) was unhappy, although it was a legitimate heir to the throne and wore a crown (processus coronoideus - the beginning). She was sitting on Epicondylus medialis (origin) and looked greedily at the radio station (os radius - insertion). And she wanted to make a career in the media! She already completely forgot about her grief and decided to seek advice. The wise Flexor Carpi radialis took a place near her on Epicondylus medialis (top). He worked for a long time on radio (os radius - attachment).

A gaming method can be used on a practical lesson.

³ Gomes Mda M., Moscovici M., Engelhardt E. "Andreas Vesalius as a renaissance innovative neuroanatomist: his 5th centenary of birth", *Arquivos de Neuro-Psiquiatria*, 2015, № 73(2), P. 155–158.

⁴ Karimsakova B.K., Zhumabaeva T.N. "Non-imitational testing method - "lecture back" [Neimitacionny] metod obucheniya – «lekcija vdvoem»], *Science yesterday, today, tomorrow: Sat. Art. by mothers XXXVII intern. scientific practice. conf.* [Nauka vchera, segodnya, zavtra: sb. st. po mater. XXXVII mezhdunar. nauch.-prakt. konf.], 2016, № 8 (30), Part I. – Novosibirsk: SibAK, P. 62–66 [in Russian].

⁵ Jones R. "Leonardo da Vinci: anatomist", *Br J Gen Pract*, 2012, № 62 (599), P. 319.; Jose A M. "Anatomy and Leonardo da Vinci", *Yale journal of biology and medicine*, 2001, № 74 (3), P. 185–195.

The student chooses a card with anatomical structure and shows to all present, after which he has to guess it by asking a number of questions. Example⁶:

- "Am I a muscle?"
- "No"
- "Am I a nerve?"
- "Yes!"
- "Then I belong to the upper extremities?"
- "Exactly"
- "Am I responsible for innervations of the muscles of the forearm?"
- "Yes!"
- "Then I'm the n. radial?"
- "Almost"
- "I'm a branch?"
- "Yes, and what?"
- "N. interosseus posterior?"
- "Right!"

Analyzing methods, consistency, volume, visibility of teaching and knowledge control system for students of human anatomy in a medical college, we conclude that all structural educational subjects of the subject are checked by time, are worked out and necessary. At the same time, they need constant study, correction and improvement in order to improve the quality of education. When forming a training block, it is necessary to foresee the time-division of educational material in such a way as to combine different types of work, collective and individual forms of occupation, reproductive and creative activity; rational selection and presentation of educational material with a clear allocation of basic knowledge of the topic, main and additional literature, the introduction of hyperlinks to these sources of information; the presence of lecture material for the purpose of providing additional amount of information necessary for the achievement of the target activities in the practical lesson; structuring training material for multi-level analysis and integration of new information⁷. Structure of the content of the educational material should be based on the principles of unity of the content and apparatus of the organization of learning knowledge; accounting for patterns of perception of textual and visual information; systemic and systematic presentation of educational material; maximum availability of information without the participation of a teacher; integration and differentiation of knowledge; ensuring the logical continuity of new and previously acquired information, actively using new information for repetition and deeper assimilation of the material; establishing interdisciplinary ties⁸.

Conclusions. The use of modern educational technologies that ensure the personal development of students by reducing the proportion of mechanical memorization in the learning process can be considered as a key condition for improving the quality of education, reducing the load, more efficient use of training time. Among the main reasons for the use of new pedagogical technologies is the need to consider and use psychophysiological and personality features

of students and the possibility of designing an educational process, organizational forms of interaction between students and teachers that provide guaranteed learning outcomes for future medical professionals.

Наталія Наварчук, Олександра Гузік, Олександра-Марія Попелюк, Наталія Решетілова, Антоніна Аністратенко. Історико-цільовий підхід у прикладному вивченні анатомії. Інноваційні методи дослідження в сукупності з традиційними педагогічними технологіями дозволяють оптимізувати освітній процес. Удосконалення системи викладання предмета анатомії включає в себе і організацію навчального процесу, що відповідає сучасним вимогам підготовки фахівців, формування у студентів стійкого інтересу та інтерактивного ставлення до процесу навчання. У викладанні постає основною метою не тільки орієнтація на засвоєння певного обсягу знань, а й розвиток особистості студента, його пізнавальних і творчих здібностей. Це стає можливим за участі студентів в роботі наукового гуртка, виступах на наукових конференціях. Робота студентського наукового гуртка має різноманітний і багатоплановий характер та включає в себе організацію тематичних лекцій від фахівців з метою об'єднання фундаментальних знань з різних дисциплін для розуміння етіології і механізмів розвитку патологічних процесів у пацієнта, вікових особливостей та закономірностей розвитку організму, молекулярних механізмів регуляції. Після лекційного заняття проводиться практичні навички: препарування, накладання швів та в'язання вузлів, інтерпретація та вивчення комп'ютерних і ядерно-магнітно-резонансних томограм, ультразвукових зображень, що поряд з дослідженням аналогічних анатомічних препаратів дозволяє скласти більш повну картину будови тіла людини, полегшує сприйняття і сприяє підвищенню мотивації до навчання. При викладі лекційного матеріалу застосовується традиційний метод, а також інноваційний метод: «лекція удвох».

Ключові слова. Інноваційні технології, педагогічні технології, анатомія, науковий гурток.

Наварчук Наталія – доцент кафедри анатомії людини ім. М.Г. Туркевича ВДНЗ України «Буковинський державний медичний університет», кандидат медичних наук. Автор 118 друкованих наукових і методичних праць, у тому числі 4-х навчальних посібників. Коло наукових інтересів: нормальна анатомія, ембріологія, педагогіка.

Navarchuk Natalia – Associate Professor at M.G. Turkevich Department of Human Anatomy of the Higher State Educational Establishment of Ukraine „Bukovinian State Medical University”, PhD. The author of about 100 published scientific and methodical works, including 3 textbooks. Research Interest: normal anatomy, embryology, pedagogy.

Гузік Олександра – асистент кафедри анатомії, топографічної анатомії та оперативної хірургії, ВДНЗ України «Буковинський державний медичний університет», аспірант. Автор 23 наукових і методичних праць. Коло наукових інтересів: нормальна анатомія, патологічна анатомія.

Guzik Oleksandra – Professor's Assistant at the Department of anatomy, topographical anatomy and operative surgery of the Higher State Educational Establishment of Ukraine „Bukovinian State Medical University”. The author of 23 published scientific and methodical works. Research Interest: normal anatomy, pathology anatomy.

⁶ Christine Zeides Und wie lernst du so? – Anatomie mal anders, URL: <https://www.thieme.de/viamedici/mein-studienort-berlin-1575/a/und-wie-lernst-du-so-anatomie-mal-anders-31885.htm>

⁷ Andreev A.A. “Distance education and distance education technologies” [Distancionnoe obuchenie i distancionnye obrazovatel'nye tekhnologii], *Open education* [Otkrytoe obrazovanie], 2013, № 5, P. 40–46 [in Russian]. Gayvoronsky I.V., Nichiporuk G.I., Tikhonova L.P. “Contemporary Approaches to the Organization of the Educational Process at the Department of Human Anatomy” [Sovremennye podhody k organizacii uchebnogo processa na kafedre anatomii cheloveka], *Journal of Theoretical and Practical Medicine* [Zhurnal teoreticheskoy i prakticheskoy mediciny], 2010, № 8, P. 292–295 [in Russian].

⁸ Sapin M.R. “Anatomy of man - basic science in medical education” [Anatomiya cheloveka – bazovaya nauka v medicinskom obrazovanii], *Med. education and prof. development* [Med. obrazovanie i prof. razvitie], 2011, № 2, P. 96–97 [in Russian].

людини ім. М.Г. Туркевича ВДНЗ України «Буковинський державний медичний університет», кандидат медичних наук. Автор 85 друкованих наукових і методичних праць, у тому числі 2-х навчальних посібників. Коло наукових інтересів: морфологія, нормальна анатомія, ембріологія, хірургія, громадське здоров'я.

Popelyuk Oleksandra-Mariia – Associate Professor at M.G. Turkevich Department of Human Anatomy of the Higher State Educational Establishment of Ukraine „Bukovinian State Medical University”, PhD. The author of about 85 published scientific and methodical works, including 2 textbooks. Research Interests: morphology, normal anatomy, embryology, surgery, public health.

Решетілова Наталія – доцент кафедри анатомії людини ім. М.Г. Туркевича ВДНЗ України «Буковинський державний медичний університет», кандидат медичних наук. Автор 102 друкованих наукових і методичних праць, у тому числі 7 навчальних посібників. Коло наукових інтересів: нормальна анатомія, ембріологія, педагогіка.

Reshetolova Nataliia – Associate Professor at M.G. Turkevich Department of Human Anatomy of the Higher State Educational Establishment of Ukraine „Bukovinian State Medical

University”, PhD. The author of about 102 published scientific and methodical works, including 7 textbooks. Research Interests: morphology, normal anatomy, embryology, public health.

Аністратенко Антоніна – кандидат філологічних наук, доцент кафедри суспільних наук та українознавства ВДНЗ «Буковинський державний медичний університет». Коло наукових інтересів: сучасний арт-процес в Україні та країнах Західної Європи, викладання української мови як іноземної. Автор близько 100 наукових праць, статей, розвідок, у тому числі 3 монографії, 1 навчальний посібник.

Anistratenko Antonina – PhD, Associate Professor of the Department of Social Sciences and Ukrainian Studies, Higher State Educational Establishment of Ukraine «Bukovinian State Medical University». Research interests: modern art process in Ukraine and Europe. Is an author of 100 scientific publications including 3 monographs, 1 manual.

Received: 24.11.2018

Advance Access Published: December, 2018

© N. Navarchuk, O. Guzik, O. Popelyuk, N. Reshetilova, A. Anistratenko, 2018