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INDEPENDENT WORK OF STUDENTS AS A BASIS FOR QUALITY QUALIFICATION TRAINING

Higher education plays an essential role in providing professional training of competent and competitive specialists for the health care system. Nowadays, the educational process mainly focuses on active teaching methods and independent work of higher education students.

Employers are only sometimes satisfied with the quality of training of higher education institution graduates. When it comes to improving the quality of education of higher education students, one of the main focus areas is developing students' skills of independent work, which necessitates teaching them to autonomously process, analyze, structure, and effectively use the information students need for their utmost self-fulfillment and contribution to society.

The modern higher education system seeks to intensify the cognitive activity of students by independently finding answers to questions. Reducing the number of in-class lessons requires organizing the independent study of topics and providing proper methodological support for students' independent work. The efficiency of students' independent work depends on planning. When planning this type of work, it is necessary to consider students' ability to work on topics independently, i.e. the material's complexity and volume. Naturally, a teacher plays the primary role in organizing higher education students' independent work.

Evaluating the quality of independent work requires a qualitatively new format of conducting contact hours of a teacher with higher education students. Based on the experience of the Department of Experimental and Clinical Pharmacology, the most effective methods include round table discussions, Internet reviews, computer presentations, case studies, conferences, debates, and role-playing games.

Thus, using active learning methods and new monitoring forms in managing the independent work of higher education students significantly improves the quality of training of future doctors.

Key words: *higher education, independent work, effective monitoring forms.*

Introduction and the current state of the research problem.

Higher education plays an important role in providing professional and competitive training for the health care system along with scientific advances and modern labour market requirements. Nowadays, the educational process is mainly focused on active teaching methods and independent work of higher education students.

It is generally known that employers are not always satisfied with the quality of training of higher education institution (HEI) graduates. Educational programs must fully meet the employers' expectations as well as the needs of

today's ever-changing labour market to resolve this issue. When it comes to improving the quality of education, one of the main areas of focus is developing students' skills of independent work which necessitates teaching them to independently process, analyze, structure, and effectively use the information students need for their utmost self-fulfilment and contribution to society (Kichuk, 2019; Chebykin, 2021; Bondarenko, 2021).

Aim and tasks.

The modern higher education system seeks to intensify the cognitive activity of students by independently finding answers to questions. The main focus is on students adopting an independent, creative, exploratory approach to learning educational material and developing the qualities of a researcher. Reducing the number of in-class lessons requires organizing the independent study of topics and methodologically supporting students' independent work properly and most efficiently.

It is reported that the material retention rate depends on the type of classes and stands as follows: lectures – 5% (auditory perception), textbooks – 10% (reading), the use of audiovisual media – 20% (visual and auditory perception), using visual aids – 30% memory, logical thinking, intelligence), group discussion – 50% (discussion, active thinking), students' performing practical tasks – 70% (becoming cognitively independent and active), teaching others – 90% (applying the acquired knowledge directly) (Vorobyova, 2020). Thus, students can receive over half of their knowledge through intensive independent work, which is organized, managed, and guided by the subject teacher of a specialized HEI, for example, a Pharmacology teacher in a medical higher education institution.

Independent work is the main component of students' learning activities and research. It should be well-managed, both in terms of methodology and technical capabilities. Students' independent work comprises academic hours assigned for completing homework on the topic of practical classes, as well as hours on studying topics that are not covered by practical classes but are included in the final modular assessment or the discipline's pass-fail test. Covering each topic requires teachers to clearly identify the purpose of work, make tasks and questions for independent work, and recommend materials for further reading. Managing independent work properly allows students to understand and master the material according to the subject's curriculum, develop independent views and opinions, learn to think logically, prove the validity of their point of view, and discuss a specific topic (Mudryk, 2020).

The effectiveness of students' independent work depends on planning. When planning this type of work, it is necessary to take into account students' ability to work on topics independently, i.e., the material's complexity and volume. Of course, teachers play the main role in organizing students' independent work. Their main focus should be on creating conditions conducive to students' choosing their own "educational trajectory", planning their activities, advising on the use of specific textbooks, tools, techniques, and methods, and enhancing independent learning activities of students.

Research methods.

When starting a new course, it is important to identify specific skills the students need for independent work to develop and improve their various learning skills. To this end, students need to fill in the Survey on Self-assessment of Learning Skills at the Department of Experimental and Clinical Pharmacology. Students evaluate their skills with a teacher on a ten-point scale, with 10 points corresponding to the most optimal case and 0 to the most negative one (a complete absence of skills). The questions are as follows:

1. I can listen to and take notes of the main material.
2. I can report in class and justify my opinion.
3. I can work with a library catalogue and select literature on the topic.
4. I can write an abstract.
5. I can make a plan for each text providing some information.
6. I know how to take notes when studying the text.
7. I can write the main points of the text.
8. I can compose essays using several sources.
9. I can work with reference books.
10. I can draw conclusions from experiments or information I've read.

Research results.

The results of the 2020 survey of 23– year domestic students of the Medical Faculty and Faculty of Dentistry who study Pharmacology at Poltava State Medical University, were as follows. A total of 60 students took part in the survey, 20 from each faculty and year. The questionnaire results show that most problems arise when working with a library catalogue to select the necessary literature. Students experienced issues when writing abstracts, plans, and notes for each text, as well as to draw conclusions from experiments or the obtained information. In addition, second-year students' self-esteem was higher than that of third-year students, as they do not deal with as many independent decision-making issues and tasks planned by the subject curriculum. Third-year students were more critical of their abilities, as they were more experienced in performing tasks independently when preparing for practical classes, as well as writing abstracts. A very glaring problem is their inability to draw conclusions from experiments or information received, as well as to speak in class and prove their point. It is obvious that seminars on working with the library catalogue and Internet resources that are regularly held by the university library's staff can facilitate students' acquisition of independent work skills.

Discussion.

In order to test the knowledge of the topics covered independently, a qualitatively new format of conducting contact hours of an HEI teacher with students is required. The most effective methods (based on the experience of the Department of Experimental and Clinical Pharmacology) include round table discussions, Internet reviews, computer presentations, case studies, conferences, debates, and role-playing games which correspond to research findings (Mudryk, 2020; Bandas, 2021).

Classes can be held as round tables based on several points of view on the same issue. Discussing them leads to developing opinions and solutions acceptable to all discussion participants. Students can be given a task to prepare on the topic of the round table beforehand. Each participant at the round table must express his/her reasoned opinion on the discussed topic. The results are summarized and the recommended solution to the problems discussed is voiced at the end of the class.

Information resources on the Internet are used in the educational process for the preparation of abstracts, reports, and material for information work. In order to navigate the diversity of information provided by the Internet, recommendations for students have been developed by the staff of the Poltava State Medical University library to ensure competent search and information selection. It should be noted that Internet sources should be approached accurately, as responsibility for the posted information, very often, no one takes responsibility.

Computer presentation is a certain logical sequence of displaying materials that reveal the stated topic with a high degree of perception. Diagrams, charts, and graphs are used in presentations to improve the process of memorization.

The greatest effect is achieved through the complex use of different types of interactive activities: "round table" using the "Internet Review" to prepare messages and presentations. In particular, the presentation can be considered as a type of knowledge control of higher education, which reveals their analytical thinking, the ability to compare the acquired knowledge, to develop the work done in such a way that it was truly creative.

A conference is widely used at the Department of Experimental and Clinical Pharmacology to check the process of the student's work on the paper. An abstract is a traditional form of independent work, its main function is to develop skills in working with different sources. The use of modern technology, unfortunately, very often leads to the fact that the abstract turns into a "downloaded" from the Internet product of unknown origin, often unread even by the student. The use of the conference to defend the abstract contributes to the development of skills of analysis, generalization, and commentary, as well as a competent presentation of the topic. The conference promotes the development of the ability to comprehend the information, highlight the main points, ask questions, and discuss.

Another important type of independent work is to discuss interdisciplinary problems (Ilenko, 2018; Lutsenko, 2021). Interdisciplinary studies of different types and classes integrate studied material on Pharmacology and other subjects and cover different types of educational and cognitive activities of the student (lectures, practical classes, independent work, control, and diagnostic computer testing).

The development of interdisciplinary tasks was carried out in order to be interdependent with the studied material of general and special medical disciplines and reflect the main aspects of the professional activity of a medical specialist.

The system of interdisciplinary tasks includes three units, which were developed in order to manage different levels of complexity: 1) application of skills of theoretical disciplines in the study of Pharmacology (calculation of volume and mass of dosage forms, concentration of liquid dosage forms, solubility of antibiotics in different solvents); 2) application of the studied Pharmacology in clinical disciplines (choice of drug, its rational use, calculation of its single and daily dose paying attention to patients' characteristics); 3) application of the studied Pharmacology in Pediatrics (choice of drug for a child, its rational use, calculation of single and daily dose paying attention to age, and pathology in pediatric patients).

Conclusions.

In conclusion, the use of active teaching methods and new test forms in the organization of independent work of the student improves the quality of training of future doctors. Properly organized independent work should develop not only such qualities as the ability to work with special literature, reference books, and periodicals, but also facilitate students' organization, discipline, ability to be initiative and active in solving problems. The proposed method of organizing control over the independent work of the student raises its relevance and effectiveness in the modern information environment. Creating the situation of success at the end of the work is a powerful stimulus for further independent cognitive and research activities of students, and it helps to increase its effectiveness, development of initiative, communication, creative and organizational skills, and provides opportunities for self-improvement.

BIBLIOGRAPHY

1. Кічук А.В. Емоційно-особистісні особливості психологічного здоров'я студента у психологічному дискурсі. *Наука і освіта.* 2019. № 1. С. 45–51.

2. Чебикін О. Концептуальні підходи можливостей дослідження на основі емоційного здоров'я учасників навчальної діяльності в умовах коронавірусної пандемії. *Наука і освіта.* 2021. № 4. С. 23–29.

3. Бондаренко М., Куровська В., Охрей А., Подпалова О., Решетнік Ю. Проблеми дистанційного навчання студентів-медиків під час пандемії COVID-19. *Наука і освіта.* 2021. № 1. С. 19–26.

4. Воробйова О. Система забезпечення якості освіти: український досвід. *Актуальні питання гуманітарних наук.* 2020. № 29 (1). С. 259–264.

5. Мудрик У.М., Боярчук О.Р., Волянська Л.А., Бурбела Є.І. Використання активних форм навчання та сучасних інформаційних технологій як засіб інтенсифікації навчального процесу. *Медична освіта.* 2020. № 3. С. 94–99.

6. Бандас І.А., Палиця Л.М., Скобеєва О.А. Плюси і мінуси дистанційного навчання для студентів-медиків за карантинних умов. *Медична освіта.* 2021. № 3. С. 72–76.

7. Ільєнко Н.М., Бойченко О.Н. Міждисциплінарні зв'язки як фактор вдосконалення вивчення предмета «Терапевтична стоматологія» при підготівці майбутнього лікаря. *Вісник проблем біології і медицини.* 2018. № 4, 2 (147). С. 223–225.

8. Луценко О.А., Сидоренко А.Г., Луценко Р.В. Кореляційний аналіз результатів складання іспиту «КРОК». *Медична освіта*. 2021. № 4. С. 37–41.

REFERENCES

1. Kichuk, A. V. (2019). Emotsiino-osobystisni osoblyvosti psykholohichnoho zdorovia studenta u psykholohichnomu dyskursi [Emotional and personal features of psychological health of the student in psychological discourse]. *Nauka i osvita – Science and Education*, 1, 45–51 [in Ukrainian].

2. Chebykin, O. (2021). Kontseptualni pidkhody mozhlyvostei doslidzhennia osnov emotsiinoho zdorovia uchasnykiv navchalnoi diialnosti v umovakh koronavirusnoi pandemii [Conceptual approaches to the possibilities of studying the emotional health foundations of participants in learning activity under the coronavirus pandemic conditions]. *Nauka i osvita – Science and Education*, 4, 23–29 [in Ukrainian].

3. Bondarenko, M. & Kurovska, V. & Okhrei, A. & Podpalova, O. & Reshetnik, Y. (2021). Problemy dystantsiinoho navchannia studentiv-medykiv pid chas pandemii COVID-19 [Problems of distant learning of medical students during the COVID-19 pandemic]. *Nauka i osvita – Science and Education,* 1, 19–26 [in Ukrainian].

4. Vorobyova, O. (2020). Systema zabezpechennia yakosti osvity: ukrainskyi dosvid [Quality assurance system: Ukrainian experience]. *Aktualni pytannia humanitarnykh nauk – Current issues of humanitarian sciences,* 29 (1), 259–264 [in Ukrainian].

5. Mudryk, U. M. & Boyarchuk, O. R. & Volyanska, L. A. & Burbela, E. I. (2020). Vykorystannia aktyvnykh form navchannia ta suchasnykh informatyvnykh tekhnolohii yak zasobu intensyfikatsii navchalnoho protsesu [Use of active forms of learning and modern information technologies as a means of educational process intensification]. *Medychna osvita – Medical education*, 3, 94–99 [in Ukrainian].

6. Bandas, I. A. & Palytsia, L. M. & Skobeieva, O. A. (2021). Pliusy i minusy dystantsiinoho navchannia dlia studentiv-medykiv za karantynnykh umov [Pros and cons of distance learning for medical students under quarantine conditions]. *Medychna osvita – Medical education*, 3, 72–76 [in Ukrainian].

7. Ilenko, N. M. & Boichenko, O. N. (2018). Mizhdystsyplinarni zviazky yak faktor vdoskonalennia vyvchennia predmeta «Terapevtychna stomatolohiia» pry pidhotovtsi maibutnoho likaria [Interdisciplinary relationships as a factor of improving the study of therapeutic dentistry in preparing the future doctor]. *Visnyk problem biolohii i medytsyny – Bulletin of Problems of Biology and Medicine*, 4, 2 (147), 223–225 [in Ukrainian].

8. Lutsenko O. A. & Sydorenko A. H. & Lutsenko R. V. (2021). Koreliatsiinyi analiz rezultativ skladannia ispytu «KROK» [Correlation analysis of factors, which affect the success in exam "KROK"]. *Medychna osvita – Medical education*, 4, 37–41 [in Ukrainian].

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САМОСТІЙНА РОБОТА СТУДЕНТА ЯК БАЗИС ЯКІСНОЇ ПІДГОТОВКИ МАЙБУТНЬОГО ЛІКАРЯ

Вища освіта відіграє основну роль у забезпеченні професійної підготовки компетентних і конкурентоспроможних фахівців для системи охорони здоров'я. За умов сьогодення головне місце в навчальному процесі відведено активним методам навчання та самостійній роботі здобувачів вищої освіти.

Роботодавці не завжди задоволені підготовкою випускників вищих навчальних закладів. Одним із напрямів підвищення якості освіти здобувачів вищої освіти є формування навичок самостійної роботи, а для цього необхідно навчити

їх самостійно опрацьовувати, аналізувати, структурувати та ефективно використовувати інформацію, потрібну для максимальної самореалізації та корисної участі в житті суспільства.

Сучасне навчання спрямоване на активізацію пізнавальної діяльності здобувачів вищої освіти шляхом самостійного пошуку відповіді на поставлені питання. Скорочення аудиторних занять вимагає раціональної організації самостійного опрацювання тем, належного методичного забезпечення самостійної роботи. Ефективність самостійної роботи залежить від її планування. У разі такого планування необхідно враховувати спроможність здобувачів вищої освіти опрацювати теми самостійно, тобто складність та обсяг матеріалу. Безумовно, головну роль в організації самостійної роботи здобувачів вищої освіти відіграє науково-педагогічний працівник.

Для контролю самостійно опрацьованих тем необхідні якісно нові форми проведення контактних годин науково-педагогічного працівника зі здобувачем вищої освіти. До найбільш ефективних форм контролю (з досвіду кафедри експериментальної та клінічної фармакології) належать: «круглі столи», «Інтернет-огляди», комп'ютерні презентації, «кейс стаді», конференції, диспути, ділові ігри.

Отже, використання активних методів навчання та нових форм контролю для організації самостійної роботи здобувачів вищої освіти підвищує якість підготовки майбутніх лікарів.

Ключові слова: *вища освіта, самостійна робота, ефективні форми контролю.*

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