## Modern Science

### Moderní věda

№ 3 - 2019

scientific journal vědecký časopis

Prague Praha

#### MODERN SCIENCE - MODERNÍ VĚDA

№ 3 - 2019

#### **Incorporated in**

Czech Republic
MK ČR E 21453
published bimonthly
signed on the 27th of June 2019

#### **Founder**

Nemoros Main office: Rubna 716/24 110 00, Prague 1, Czech Republic

#### **Publisher**

Nemoros Main office: Rubna 716/24 110 00, Prague 1, Czech Republic

The East European Center of Fundamental Researchers Rubna 716/24 110 00, Prague 1, Czech Republic

#### Address of release

Modern Science Rubna 716/24 , 110 00, Praha 1 Czech Republic

#### Evidenční číslo

Česká republika MK ČR E 21453 Vychází šestkrát do roka podepsáno k tisku 27. června 2019

#### Zakladatel

Nemoros Hlavní kancelář: Rybná 716/24 110 00, Praha 1, Česká republika

#### Vydavatel

Nemoros Hlavní kancelář: Rybná 716/24 110 00, Praha 1, Česká republika

Východoevropské centrum základního výzkumu Rybná 716/24 110 00, Praha 1, Česká republika

#### Adresa redakce

*Moderní věda* Rybná 716/24, 110 00, Praha 1 Česká republika

Editorial Board / Redakční rada Dr. Iryna Ignatieva, Ph.D. Diana Kucherenko, Roman Rossi

#### Editorial Council / Redakce

Dr. Oleksii Hudzynskyi, Dr. Halina Aliakhnovich, Ph.D. Angelina Gudkova, Dr. Iryna Ignatieva, Ph.D. Diana Kucherenko, Dr. Natalia Yakovenko, Dr. Oleksandr Makarenko, Dr. Natalia Mamontova, Ph.D. Nataliya Chahrak, Dr. Iryna Markina, Ph.D. Nataliia Ivanova, Dr. Yuriy Chernomorets

Chief-editor / Vedoucí redaktor

Dr. Iryna Ignatieva

©Modern Science — Moderní věda. — Praha. — Česká republika, Nemoros. — 2019. — № 3. ISSN 2336-498X

# INDEPENDENT WORK OF THE STUDENT AS A FACTOR IN THE DEVELOPMENT OF PROFESSIONAL COMPETENCIES IN DENTIST STUDENT'S

#### Inna Horb-Havrylchenko,

Candidate of Medicine, Associate Professor, Department of Dental Therapy,

#### Tetiana Strelchenia,

Candidate of Medicine, Associate Professor,
Department of Dental Therapy,
SI "Dnipropetrovsk Medical Academy of the Ministry of Health of Ukraine"

Annotation. The article presents the types of independent work of a student's dentist. Types the independent work of students depend up the place and work time scale, the principles of its management by the teacher and ways to control its results. The main thing in the organization of independent work of the student is not only optimize its individual types. The necessity is substantiated to laying the groundwork for high-performance activity independence and responsibility of students in the classroom and out-of-class, in the course of all types of educational activities.

**Key words:** independent work, dentist student's, professional competencies.

**Introduction.** The reform of higher education supposes the transition from the paradigm of learning to the paradigm of education in modern conditions [1]. The solution of such a complex challenge is impossible when transferring knowledge in ready-use form teacher to student. In this vein, of course, the independent work of the student is not just a form of the educational process, but its main component of higher education [2,3].

The special attention is given this problem in the literature on pedagogy, psychology and methods of teaching, summarizes the experience of practical work, studies the time budget of students, ways of rational organization and culture of mental work in relation to various disciplines of different profiles. The following trends are come into sharp focus when studying national and world trends in the development of higher education:

1) modern sociocultural conditions dictate the inherent value of the idea of continuous learning, when students are required to constantly improve their own knowledge; 2) a fundamental change in the organization of the educational process is required, in the conditions of the information society: reduction the teaching load, replacing the passive listening to a lectures and an increase the percent of independent work of students; 3) the center of gravity in teaching moves from teaching to learning as an independent activity of students in education. [4].

The process of teaching dental students has its own characteristics, in which all students must necessarily develop manual skills on phantoms and consolidate them during the clinical attendance of the patient. The introduction of new information technologies (Internet, mobile communications) is another particularity of the present time, which

is quickly open up by young people. At the same time, the importance of scientific and educational literature goes to the background. The popularity of libraries decreases with the increasing role of electronic information [5]. Therefore, special attention should be paid to the formation of the creative personality of the future dentist, which will be capable of self-development and self-education.

**Main part.** Independent work of students is one of the organizational forms of education, regulated by the working curriculum, and is carried out by students independently. Strengthening the role of independent work of students is means a fundamental review of the organization the educational process at the department. This educational process should be structured so as to form the student's ability for self-development, creative application of the gained knowledge, and adaptation to professional activities in the modern world.

Independent work of students is a diverse range of individual and collective activities of students, realize under the guidance, but without the direct involvement of the teacher, as at the practical classes as out-of-class time.

Independent work of students is a special form of instruction in accordance with the tasks of the teacher, the execution of which requires students of active mental activity, independent decision of different, that is, with this form of training, the teacher only manages the process of cognitive activity of students.

The student's independent work exists at the Department of Therapeutic Dentistry in the following forms:

- 1. Extracurricular independent work.
- 2. Classroom independent work, which is carried out under the immediate guidance of a teacher.
- 3. Independent work in contact with the teacher outside the classroom: in consultations on educational topics, in the liquidation of debts, in the performance of individual tasks etc.

The organization and control of extracurricular independent work of fourth-year students of therapeutic dentistry is one of the important areas of independent work. The department has developed tasks for each class in the form of questions and situational problems. Together with the tasks students receive methodological guidelines and samples of solutions to various situational problems at the beginning of the semester.

During preparing answers to questions, a student should not draw up ready information from a textbook, but completely and particularized study special literature, scientific publications, monographs with modern views on the etiology and pathogenesis of the disease, new approaches to diagnosing and treating this disease, analyze the received information and make certain conclusions.

Tasks include a clinical situation, which a student must necessarily make a diagnosis and execute a specific task having familiarized with. For example: a) make a plan for general treatment; b) to make recommendations on hygienic oral care and the choice of hygiene products in terms of complex treatment of the patient; c) draw up a plan of therapeutic and preventive measures for the patient, etc. Tasks allow to develop

students the skills of applying the theory to specific situations in periodontology as a whole. Students can use the "tips", during complete tasks, which are written in the methodological guidelines. In addition to tasks and questions, extracurricular work contains tasks where the student must draw some figures and captions. For example: make a drawing of periodontal instruments or schematically depict the structure of periodontal tissues, radiological signs of periodontal disease, etc.

In addition, the program of extracurricular self-study includes the preparation and writing of essays, reports on given topics, or the students are given the right to choose a topic. The teacher monitors each stage of the accomplishment of an individual task for the formation of a positive attitude of the student to independent extracurricular work. He explains the goal of the work and the stages of its achievement. Thus, the staffs of the department monitor the development of skills for independent works of students and individually with each student develop recommendations for their improvement. In the course of the assignment, the student develops practical skills for working with medical source records, systematizing information, statistical and logical manipulation of data, formulating conclusions, working with literary sources and statutory and regulatory enactments. Active and productive independent work of the student is possible only if there is a serious and sustainable motivation.

Within the framework of extracurricular independent work, students are prepared to participation in scientific conferences, olympiads, etc. The department had amassed considerable experience in preparing four-year students to participate in All-Ukrainian student competitions in the specialty "Dentistry". They give a sense of not only the general level of students' training, but also to develop in them a cognitive interest in the in-depth study of the subject, to form among students the healthy competitive spirit, which they need in future career growth.

At the Department of Therapeutic Dentistry, students are engaged in a Student's scientific circle. They are study national and foreign experience in research topics, and assimilate modern theoretical and experimental research methods. Educational and research and scientific-research works are performed by students under the guidance of associate professors and lecturers throughout the academic year. The results of the research students report on skills building session, meetings of the scientific student circle of the department, student scientific conferences.

The use of multimedia presentations is one of the main demands in light of the use of modern innovative technologies. The student has been consulted by associate professors or lecturer during preparing the multimedia presentation. The teacher emphasizes the importance of the academic approach, the development of a specific report algorithm, explicit statement of the problem, the high quality of research design, the need to briefly and specifically define goals and objectives, materials and research methods, get results across, the conclusions should be congruent with the performance targets of the research. At this stage, students learn to analyze and correctly interpret the data resulting from the study, to form a systematic approach to the analysis of medical information. Surely, students develop the skill of working with literature, Internet resources, building stages

of research work.

Aims and goals should be accessibly explained at each stage of the work in order to actively study the material and complete the task. The teacher controls students' understanding of these goals. Thus, the ability of self consistent formulates a task and select a goal has been developed gradually by student.

Auditorium independent work is implemented during practical exercises and lectures. The lecturer controls the acquirement of the material by the majority of students during lecturing directly in the audience. This is realize through snap poll on specific topics. Lecturers give special attention to the problem of perception of the lecture by students; they aspire to highlight intra- and interdisciplinary communication, the succession of courses. Knowledge of students, not properly secured connections, poorly preserved. The active use of multimedia technology also increases interest in the discipline and logical perception.

The section "Periodontal Diseases" is taught in several ways for optimize the educational process at the Department of Therapeutic Dentistry of the State Institution "Dnepropetrovsk Medical Academy of the Ministry of Public Health of Ukraine". The analysis of topics widely is meant to be used on the context of solving situational tasks. The following materials are used as a demonstration material: tables, photographs of clinical case, radiographs and the results of additional clinical examination methods (complete blood cell count, urine test, blood glucose test, immunograms, cytological and microbiological test results) on paper and electronic media. Another binding upon path is the clinical discussion of the patient and the hands-on skill practice, which occupies most of the skills building session. An independent clinical examination of a patient by a student provide insight into the student's abilities, evaluate the patient's condition in an integrated manner, taking into consideration his age, and the social and psychological structure of the personality. This form of work teaches the student to see and highlight the cause and its consequences of the development of pathological processes in all relationships in the human body. An additional point is that, the whole group is included in the discussion of this problem. At the same time as, one student is receiving a patient, demonstrating and commenting on the clinical signs of the disease, while other students of the group are actively involved in interview, subjective and objective data, making a diagnosis, and conducting a differential diagnosis. At the end of the class, all students must fill out an outpatient medical record of the dental patient; write down the plan and the results of the examination, an individual treatment plan for the periodontal patient.

The great attention at the department is paid to such a training method as "Business game". Students perform independent work in small groups ("teams"), while conducting skills building session in the form of a "Business Game". Each "teams" develops its own action plan in a particular clinical situation. After that, there is a public discussion and protection of his version in front of another "team".

These approaches to the study of periodontal disease significantly increase the level of theoretical knowledge and the ability to independently solve specific practical tasks. All this stimulates the student's learning activity, encourages students to learn more. In

addition, this method constrain them to look for other sources of professional information (Internet, new publications), except for textbooks.

Independent work of students is an integral part of the on-the-job training and piece out approximately 90% the whole workload of the on-the-job training of the discipline.

In addition to accomplishment practical skills, independent work of a student during on-the-job training includes: filling in medical records, working with literature, preparing conversations, lectures, reports, presentations on treatment and prevention dental diseases making materials dental education (memos, health newsletters, questionnaires, presentations, etc.).

Various types of independent work of the student as part of on-the-job training, contribute to the acquirement of the culture of thinking, the ability in written and spoken language, to logically correct formalize its results; readiness to form a system approach to the analysis of medical information, the perception of innovation. The internship itself ensures the acquisition and consolidation of the necessary skills, the formation of professional competencies, readiness for independent and individual work, and the adoption of responsible decisions. The work with patients forms in students the ability to scientifically analyze medical and socially important problems, readiness for logical analysis of various kinds of reasoning, knowledge of communication skills, argumentation, polemics and discussion [6].

**Conclusions.** Independent work of a student contributes to the development of cognitive activity, imaginative thinking of students, train skills of independent searching of information, and also forms the ability and willingness to self-improvement, self-realization and transcreation.

The introduction of self-study methods contributes to the comprehend and independent work of the student, in the first instance with educational material, then with scientific information, build the foundation for self-organization and self-education in order to instill the ability to continuously improve own skills in further.

The decisive role in the organization of independent work of the student belongs to the teacher, who must work not with the student "in general", but with a specific personality, with its strengths and weaknesses, individual abilities and inclinations. The task of the teacher is to see and develop the best qualities of the student as a future dentist.

#### References:

- 1. Yu.V.Polyachenko. Medichna osvita u sviti ta v Ukrayini. /Yu.V.Polyachenko, V.G.PerederIy, O.P.Volosovets // navch. Posibnik. K.: Kniga plyus, 2005. 384 c. . (In Ukrainian)
- 2. Plotnikova O. Samostoyatelnaya rabota studentov: deyatelnostnyiy podhod / Plotnikova O. // Vyisshee obrazovanie v Rossii. − 2005. − № 1 − S. 178–179. (In Russian)
- 3. Petrushanko T.A.. Samostoyatelnaya rabota studentov na kafedre terapevticheskoy stomatologii v ramkah kreditno modulnoy sistemyi / Petrushanko T.A.. Dubova L.

- I., Bubliy T.D. // Materialyi uchebno-nauchnoy konferentsii s mezhdunarodnyim uchastiem: Sovremennyie tehnologii upravleniya uchebnyim protsessom v vyisshih meditsinskih uchebnyih zavedeniyah. Poltava, 2014. 167-168. . (In Ukrainian)
- 4. Scherbakova E. V. Samostoyatelnaya rabota studentov kak vazhneyshaya sostavlyayuschaya organizatsii uchebnogo protsessa v vuze // Molodoy uchenyiy. 2010. №8. Т. 2. S. 188-190. (In Russian)
- 5. Mescheryakova, M. M. Kachestvo podgotovki vracha v vuze: chto eto takoe i mozhno li ego uluchshit: razmyishleniya prepodavatelya /M. M. Mescheryakova // Vrach. 2002. № 3. S. 46–49. (In Russian)
- 6. Rol proizvodstvennoy praktiki v podgotovke spetsialistov po terapevticheskoy stomatologii/I. V. Gorb-Gavrilchenko, T. N. Strelchenya// Ukrayinskiy stomatologichniy almanah. 2014. № 1. S. 93-95. . (In Ukrainian)