



Organizing of the pre-university training in specialized Russian for prospective international medical residents

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Abstract

The paper focuses on professional communication issues which are directly linked to training international students, who are prospective medical residents, in Russian for medical professionals, at the pre-University stage. The authors describe the training process organization as a system. They suggest the system structure and analyze its constituent elements and inter-connection between them. The researchers define the skills and abilities necessary for communication in a professional environment and reveal difficulties which may arise when professional communication takes place in a foreign language. The paper analyzes the specifics of building professional speech competencies in international students in compliance with their future profession. It enables the authors to define the main methodological principles of training international students in specialized Russian. All the ideas suggested by the researchers are exemplified with medical contexts.

Keywords: international medical residents, professional communication, training principles, education approaches, methods and means of training

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INTRODUCTION

There is no doubt that medical professionals are in high demand all over the world. Medical students make the majority of international students in Russia. Belgorod State University is no exception. About a thousand international students from 50 countries are pursuing Specialist or PhD degrees or are involved in residency training. Most of them study according to a standard pattern which has been used successfully at the University for many years. It includes the pre-University stage and further training in a Specialist program, which provides for building communication skills and professional competencies on a step-by-step basis. Seven years of training in Russian and in medical subjects ensures a high level of competency in Russian for medical professionals. Hence, upon obtaining a Specialist degree, students usually have no difficulty in passing entrance tests for residency programs.

Some international students who arrive in Russia have received degrees in their native countries. They intend to continue their education in Russian medical residency programs. The main problem our academic staff faces in this case at the pre-University stage is the need to build competencies in general Russian (B1 level) and Russian for medical professionals within a very short term, which is one academic year. The

Russian language competency level in such international students must enable them to interact with lecturers, medical staff at hospitals, patients and their relatives, as well as to read textbooks and academic literature, keep records and formalize documents.

So far, issues of training the above category of international students have been underexplored. It explains the timely character of our research.

METHODS

The research methods we have used include the following: 1) comprehensive theoretical analysis of the phenomenon under study (including the theoretical analysis of academic and methodological papers with a view to exploring the expertise on the issue, as well as the study of standardizing documents and resources for teaching Russian to international students); 2) questionnaire methods aimed at revealing students' needs and amending the training process; 3) observation methods (observation of pre-University students' activities in lessons of Russian as a foreign language); 4) simulating the process of teaching

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professional terminology system taking into consideration the students' adaptation specifics, psychological and national characteristics; 5) experimental pedagogical research method (experimental teaching, ascertaining test).

RESULTS AND DISCUSSION.

Due to the Russian language proficiency requirements for prospective international medical residents, teachers of Russian as a foreign language and international students face a tough challenge. The process of training students in specialized Russian must be organized in such a way as to enable the latter to communicate with people in everyday situations and, in the first place, in a professional environment. This must be achieved within a limited number of lessons.

"Foreign citizens studying at the pre-University department and planning to apply for medical residency programs are usually adults who have built professional communication competencies in their native languages, they have some previous job experience" at healthcare institutions in their countries (Svoykina, 2019, p.101). Mainly, they are "fulfilled people having some life experience and practical training skills. They enter Russian Universities in order to obtain a Specialist degree and to become experts, and they understand the difficulties they may face at different stages of training" (Svoykina, 2019, p.101).

The goal of this research is to suggest a way to organize the process of pre-University training for international students, prospective medical residents, in Russian for professional purposes, given few academic hours. The organization suggested will make the process of teaching professional medical terminology more goal-oriented and efficient.

At the beginning of our research, we described the stages of organizing pre-University training process for future medical residents in Russian for professional purposes at Belgorod State University. The stages include: 1) analyzing the scientific papers, works on psychology, pedagogics and methods of teaching focused on the problem under study; 2) defining the goals, methods, approaches, principles and means of training, as well as assessment criteria and indices; 3) organizing the process of teaching medical terminology system and implementing it at Belgorod State University department for pre-University training; 4) amending the training process organization based on the observation results. (Motina, 1983). Let us consider each stage in detail.

Contemporary research works focused on training international medical students (papers by Zh.V. Butenko, D.A. Zhurkina, E.A. Ivanova, O.L. Korolyova, V.N. Kurilenko, A.I. Sinelnikova etc.) enable us to determine ways to enhance the efficiency and improve the quality of training pre-University students intending

to apply for residency programs. We have also determined the main education approaches: 1) the anthropocentric one implying that a linguistic identity should be formed having foreign language communicative competency and the ability to communicate with people in a professional environment; 2) the *communicative approach*, whereby importance is attached to the informative aspect of speech. (Shchukin, 1990).

In organizing the training process, we adhere to the principles of individualization, professional orientation, variation, integrity, problemat�icity, functionality and situationality. (Kryuchkova, Moshinskaya, 2013).

Let us consider them in detail. The *individualization principle* is the underlying one for teaching a terminology system to adults who are highly motivated. In organizing the training process for future medical residents, we differentiated the assignments and performance methods based on the students' individual characteristics and their specialization. The *professional orientation principle* was implemented in the content of the study modules, namely: "The Russian language (professional module)" and "The Russian language (for professional purposes)" containing linguistic material which is of interest to prospective medical residents. The assignments in the textbooks stimulate students to apply the professional competencies they have in their native language to a foreign language (Russian). The *variation principle* suggests a choice of assignments and performance methods depending on individual abilities and interests, as well as on medical specialization. The process of teaching a system of professional terminology may be more efficient, provided that the Russian as a foreign language course is integrated with special subjects, for instance, "Professional communication" which includes such sections as "Cardiovascular diseases", "Gastrointestinal diseases", "Respiratory diseases". It enables students to build a broader perception of the socio-cultural communication environment in various professional situations and implies that professional communication purposes are achieved. Based on the *problemat�icity principle*, pre-University students studying specialized courses are offered a problem to solve. The solution is directly connected with residency training. The *functionality principle* implies mastering various types of verbal activities. For instance, knowing the symptoms of a disease and having the ability to build a dialogue between a doctor and a patient, the student learns to record the patient's complaints in the medical history, to describe the disease, treatment tactics and changes in the patient's health condition, during the medical round. Using the *situationality principle* is the main condition of building professional communication skills, for it makes it possible to simulate various situations emerging between doctors and patients, or between medical colleagues. (Dmitrieva, 2016).

All the principles described are interdependent and interconnected. They form an integral system which is basic to the strategy of teaching a system of professional terminology effectively.

The professional part of the curriculum for prospective medical residents at Belgorod State University pre-University training department includes two subjects: "The Russian language (professional module)" and "The Russian language (for professional purposes)".

"The Russian language (professional module)"

A total of 160 contact academic hours is scheduled for the subject. The course content is divided into topics, depending on the complexity of lexical and grammatical phenomena (on a "simple-to-complex" basis), and on the stage of building foreign language professional communicative competencies (from knowledge of medical terminology system and grammar skills to text building, including dialogue making, in compliance with contemporary standard Russian and the student's communication stance).

An educational text containing professional terms is basic to building professional communicative competencies. It is accompanied with a system of exercises comprising pre-reading, reading and post-reading activities. Pre-reading activities are aimed at removing phonetic, lexical and grammar difficulties. It is achieved by doing respective exercises including activities aimed at *building vocabulary recognition and differentiation skills, translation, choice of synonyms and antonyms, gap-filling, building association graphs, collocability exercises* etc.

In doing the reading assignments, "students are offered a communicative stance aimed at making the process of reading a goal-oriented one" (Zhuravlyova, Zinovyeva, 1984, p.19). The exercises and assignments offered require that students should read the text again, which enables them to understand it fully, including the lexical and structural units they did not know before. They also develop the formal logical competency in students. Examples of reading tasks include the following: *choose titles for the paragraphs; divide the text into parts; find specific information in the text; render the main idea of the text in your own words; use the text to describe / tell us about* (Vishnyakova, 2003).

Post-reading assignments focus on comprehension check, "ensuring a creative use of the information received" (Kryuchkova, Moshinskaya, 2013, p.19). containing professional terms.

Examples of exercises for the topic "Human limbs".

Exercise 1. a) Read and translate the words:

ключица, лопатка, кость, запястье, пястье, локоть, сустав, таз, соединение, фаланга, колéно, вёртел, спинá, скелёт, чáшка, чáшечка (колéнная),

подвижный (-ая, -ое, -ые), берцовый (-ая, -ое, -ые), малый (-ая, -ое, -ые), малоберцовый (-ая, -ое, -ые)

б) Read and translate the verb, write down its finite forms. Remember the case of nouns accompanying this verb in speech.

Соединять (НСВ, I) + что (Ф4 В.П.)

Я _____ Мы

Ты _____ Вы

Он, она _____ Они

Exercise 2. Listen and repeat, read.

Голова́, головной, головной мозг. Ше́я, шейный, шейный отдел, шейный отдел позвоночника. Нос, носовой, носовая кость, носовое дыхание. Но́готь, ногтевой, ногтевая пласти́на. Локоть, локтевой, локтевая кость. Бедро́, бедренный, бедренная кость.

Exercise 3. Make adjectives according to the pattern.

Example: ГОЛОВА ГОЛОВНОЙ, ГОЛОВНАЯ, ГОЛОВНОЕ, ГОЛОВНЫЕ

1. грудь ... (-ой, -ая, -ое, -ые) 2. скелет ... (-ый, -ая, -ое, -ые) 3. верх ... (-ий, -ья, -ее, -ые) 4. низ ... (-ий, -ья, -ее, -ие) 5. рука ... (-ой, -ая, -ое, -ые) 6. нога ...

(-ой, -ая, -ое, -ые).

Exercise 4. Write adjective endings. Explain your choice.

1. Больш... вертел. 2. Нижн... конечность. 3. Локтев... сустав. 4. Коленн... суставы. 5. Тазов... кость.

Exercise 5. a) Pay attention to how compound words are built. Explain their meanings.

голень + стопа = голеностопный

лучевой + запястный = лучезапястный

б) Complete the sentences.

1. Голеностопный сустав – это сустав _____.

2. Тазобедренный сустав – это сустав _____.

Exercise 6. Read the text. What is it about? Name the joints and bones you have read about.

Руки – это верхние конечности человека.

Плечо́, предплечье, надплечье, кисть – это части рук. Пальцы – это части кисти. Но́гти – части пальцев человека.

Кости рук – это ключица, лопатка, плечевая кость, локтевая кость, лучевая кость, кости запястья, кости пястья и фаланги пальцев.

Суставы соединяют кости. Сустав – это подвижное соединение костей. Суставы верхней конечности – это плечевой сустав, локтевой сустав, лучезапястный сустав. Плечевой сустав соединяет лопатку и плечевую кость. Локтевой сустав соединяет плечевую и локтевую кости. Лучезапястный сустав соединяет лучевую кость и кости запястья.

Exercise 7. Complete the sentences.

1. Рука – ... конечность человека. 2. Ноги – ... конечности человека. 3. Лопатка и ключица – верхние ... верхней конечности человека. 4. Стопа – ... сегмент нижней конечности человека. 5. Пальцы – части ... и части ... человека

It should be noted that at the primary stage of teaching Russian (professional module), the amount of educational aids should be moderate, exemplified with visual aids, with IT used. These recommendations are important, as this subject begins as early as 120-140 academic hours after the students achieve A1 (elementary) level and it is quite difficult for them.

“The Russian language (for professional purposes)”

A total of 110 academic hours is scheduled for this subject. Apart from building the skills of a medical interview, it enables international students of the pre-University department, prospective medical residents, to record patients' complaints in the medical history and to simulate communication situations using respective professional terminology.

The academic course is divided into several modules: “Cardiovascular diseases”, “Respiratory diseases”, “Gastrointestinal diseases” and “Genitourinary diseases”. Each module comprises several sections, including disease symptoms, patient's complaints, causes of the disease, diagnosing methods and treatment methods. The subject is focused on building lexical skills and activating vocabulary in making monologues and dialogues for various situations of professional communication. Students master the vocabulary due to a system of assignments which includes preliminary exercises and speech exercises. Let us suggest some examples.

Preliminary exercises

Exercise 1. Find the odd one out and explain your choice.

жар, боль, спазм, ломота, рвота, лихорадка, тошнота, озноб, сердце, аритмия.

Exercise 2. Fill in the gaps. Use the words in the correct grammatical form.

При гастрите нельзя ... острой и жирной пищей. Медикаментозное повреждение желудка ... приступ гастрита. Чтобы не было гастрита нужно ... режим питания и тщательно ... пищу. Желудок человека плохо ... тяжелую пищу. Больному язвой желудка нельзя ... алкоголем и газированными напитками. Плохое состояние жевательного аппарата, а именно больные зубы могут ... заболевания органов пищеварения.

Слова для справок: провоцировать, переваривать, пережёвывать, соблюдать, злоупотреблять

Exercise 3. Match the words and word combinations having the same meaning. Look up the new words in a dictionary

- | | |
|------------------|--|
| 1) тахикардия | а) нарушение сердечного ритма / расстройство ритма |
| 2) брадикардия | б) учащенное сердцебиение |
| 3) аневризма | в) недостаточное кровоснабжение |
| 4) аритмия | г) мешковидное выпячивание сердца |
| 5) ишемия | д) редкое сердцебиение |
| 6) экстрасистола | е) преждевременное сокращение сердца |

Speech exercises

Exercise 1. A) Read the micro-dialogue and diagnose the case.

- Доброе утро, доктор!
- Здравствуйте, проходите, присаживайтесь. Что Вас беспокоит?
- Доктор, у меня часто кружится голова, шумит в ушах и болит голова.
- Головная боль сильная или слабая, постоянная или приступообразная?
- Головная боль сильная, появляется приступами.
- Что Вас ещё беспокоит?
- Я начал очень быстро уставать, плохо сплю по ночам, сильно потею.
- Скажите, пожалуйста, бывают ли у Вас отёки по утрам или вечерам?
- Да, по утрам я сильно отекаю.

б) Read the entry in a patient's medical history and write dialogue utterances in respective columns of the table.

Больной жалуется на головокружение, шум в ушах, сильную, приступообразную головную боль, быструю утомляемость, нарушение сна, потливость и отёки по утрам.
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Пациент

Врач

Various games, quests and improvisations may also be used in classes, for instance:

“10 words” vocabulary game [8, p.199].

Objective: consolidating vocabulary of the “Cardiovascular disease” topic.

Game procedure: two teams of participants are formed. A representative of the first team counts till 10, while one of the second team must name, for instance, 10 cardiovascular symptoms (боль, спазм, тахикардия, брадикардия, аневризма, анурия, полиурия, экстрасистолия, аритмия, гипертония) or 10 adjectives describing pain accompanying cardiovascular diseases (интенсивная, режущая, колющая, сжимающая, давящая, ноющая, резкая, острая, приступообразная, слабая).

Grammar ball game (Kryuchkova, Moshinskaya, 2013, p.203).

Objective: activating skills of using verb forms in oral speech (жаловаться, беспокоить, локализоваться, иррадиировать, возникать, продолжаться, прекращаться etc).

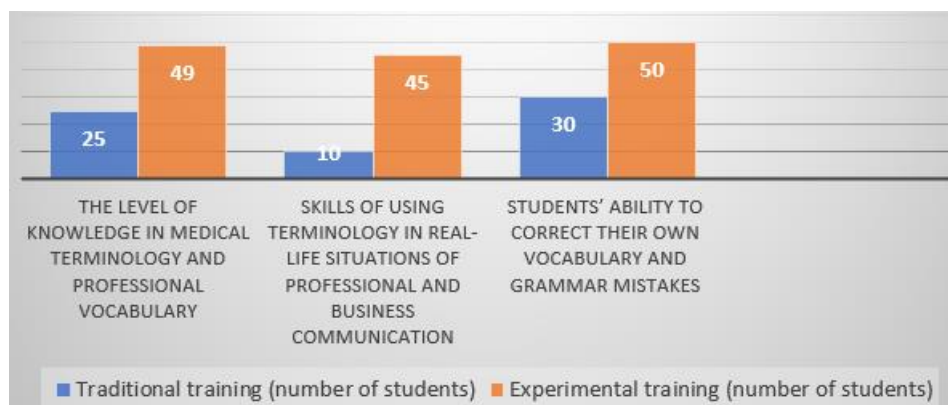


Fig. 1. Experimental teaching of the terminology system: results achieved

Game procedure: students form two teams, a representative of the first one makes a sentence using one of the verbs suggested. He/she throws a ball to a player of the second team and pronounces the sentence skipping the verb. The one who has caught the ball repeats the sentence using the verb in the necessary form and throws the ball to a player of the first team.

"Disease pattern" communicative interaction game.

Objective: activating monologue skills based on repeated descriptions and narrations.

Game procedure: each team chooses a card containing the name of a disease, and then describes the disease etiology and pathogenesis. Then they exchange cards with other teams. Their stories are compared, and discussion takes place.

Improvisation.

Objective: developing dialogue skills based on the vocabulary and grammar studied.

Game procedure: a pair of students is offered a situation. For instance, the doctor is receiving a gastritis patient. Ask him questions, examine him and administer the necessary treatment.

The activities described above enable the students to use their creative potential and enhance vocabulary and grammar skills (. Kurilenko, Titova, et al., 2014, Kurilenko, Shcherbakova, Makarova, 2015).

The process of training international students may be made more effective if adequate *training aids* are used, that is, a combination of printed teaching materials, audio, audiovisual and visual electronic resources. Lecturers of the Chair for the Russian Language, Professional and Cross-Cultural Communication are authors to a number of teaching aids and textbooks for international students who intend to apply for medical residency programs. The topics and vocabulary contained in these books meet the communication needs of prospective medical residents. Besides, the academic staff of our Chair have developed an informational terminological resource, that is, an electronic thematic dictionary, meant for training prospective medical residents. The dictionary includes terminology of various healthcare fields, such as

General Medicine, Obstetrics and Gynaecology, Cardiology, Neurology, Surgery, Pediatrics etc. "The electronic dictionary helps students to master professional terms, expand their professional vocabulary in active use and develop skills of using vocabulary in professional communication. Dictionary entries may also be used to simulate professional situations which students will come across further on, during their residency training" (Svoykina, 2019, p.104).

An assessment test was organized in academic groups studying in an additional comprehensive program of pre-University training and in experimental groups. In order to assess the efficiency of the language training pattern suggested, we used the following criteria: student motivation; psychological comfort level during the education process; teaching aids quality and teaching quality. The level of professional communication competencies in pre-University students was used as the quality index.

Assessment results are shown in **Fig. 1**.

We are now working towards improving the suggested training pattern. International students who are already studying in medical residency programs take an active part in our activities. A multimedia online training course is now underway, aimed at distance training in Russian for professional purposes. Along with the terminology in Russian, Spanish equivalents will be provided.

CONCLUSION

The research has enabled us to define the goal of the training process organization pattern. The training in Russian for medical professionals is meant for international students of the pre-University department who intend to apply for medical residency programs. Specialized modules for teaching professional terminology have been designed, justified and implemented in the education process.

We have analyzed the results of experimental training pattern applied in prospective medical residents. The organization of the training process suggested by

us enables students to enhance their proficiency in medical terminology, to develop skills of using vocabulary in various professional and business communicative situations, as well as to improve their ability to correct their own vocabulary and grammar mistakes.

Based on the assessment results, we can conclude that the training process pattern suggested actually contributes to building and developing professional communicative competencies in a foreign language (Russian) in prospective medical residents from among international students. Besides, some specifics of the

terminology system have been analyzed, and the main methodological principles of teaching Russian for professional purposes in international academic groups have been defined.

Detecting the specifics of the training pattern applied for teaching Russian for medical professionals in academic groups of international students may become an innovative basis for teaching Russian as a foreign language, taking into consideration the new requirements of training competitive specialists and contributing to the existing methods of teaching Russian as a foreign language for professional purposes

REFERENCES

- Dmitrieva, D.D., 2016. Simulating the process of training in Russian as a foreign language in the system of professional training at medical universities. *International journal of applied and fundamental research*, 11 (6): 1189-1193. (In Russian).
- Kryuchkova, K.S., Moshinskaya, N.V., 2013. *Practical methods of teaching Russian as a foreign language*. Moscow: Flinta, 480 p. (In Russian).
- Kurilenko, V.B., Shcherbakova, O.M., Makarova, M.M., 2015. *The Russian language for future doctors*. Moscow: Flinta, 136 p. (In Russian).
- Kurilenko, V.B., Titova, L.A. et al., 2014. *Let us speak about medicine in Russian*. Moscow: Flinta, 389 p. (In Russian).
- Maslyko, E.A., Babinskaya, P.K., Budko, A.F., Petrova, S.I., 1997. *A foreign language teacher's handbook*. 3d edition, stereotype. Minsk, Vysshaya shkola. 522 p. (In Russian).
- Motina, E.I., 1983. *Language and field of training: linguistic and methodological basics of teaching Russian to non-linguistic students*. Moscow: Russkiy Yazyk, 170 p. (In Russian).
- Shchukin, A.N. (Ed.), 1990. *Methods of teaching Russian as a foreign language (for foreign students studying Russian philology)*. Moscow, 232 p. (In Russian).
- Svoykina, L.F., 2019. Building professional communicative competencies in pre-University students. *The world without borders: Russian as a foreign language in the international educational space (Conference proceedings)*, pp. 100-105. (In Russian).
- Vishnyakova, E.A., 2003. *Language for special purposes*. Tula: Publishing house of Leo Tolstoy Tula State University, 62 p. (In Russian).
- Zhuravlyova, L.S., Zinovyeva, M.D., 1984. *Teaching reading*. Moscow, 98 p. (In Russian).