

Creating an online training course for medical students to prepare them for professional communication in English

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Abstract. The modern stage of social development requires medical specialists to be proficient in a foreign language using it as a means of communication to solve professional and social problems. To achieve this purpose, it is necessary to establish a close link between the training process and the criteria and the content of the trainee's professional activity. This involves solving the next task – identifying the communicative needs of a medical specialist when using a foreign language. To solve this problem, we undertook a study, which used a complex of methods: the study and analysis of scientific literature on the research topic, a survey using the developed questionnaire; methods of mathematical statistics for processing the results obtained during the survey. The survey was carried out among medical specialists of different categories working in medical institutions of the town of Cheboksary of the Chuvash Republic. The study revealed that the communicative needs of a medical specialist when using a foreign language are primarily pragmatic, so the process of teaching a foreign language should be profession-oriented, be subject to the main professional activity and contribute to solving professional problems. The result of the given study is the creation of an online English course for higher medical schools students with the help of distance educational technologies. This course is created taking into account the functional and psychological features peculiar to this contingent of students as well as specifics of their future work activity, past language experience and specific aims and objectives.

1 Introduction

Modern realities put forward new requirements for specialists in almost any of the spheres of life. One such requirement is proficiency in a foreign language at the level that would be sufficient for information exchange and interaction with colleagues. Medicine is no exception: in this area, taking into account the trends of modern development, proficiency in a foreign language is not only an advantage, but rather a sine qua non for mastering achievements of medicine in other countries, for participating in research conducted jointly with foreign colleagues. At this, many researchers, such as I.S. Gavrilina, S.L. Gerasimenko, E.F. Efremova, I.Yu. Markovina, P.I. Obrazov et al. confirm that medical

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professionals, both medical practitioners and educators of medical higher education institutions, experience significant difficulties in processing highly professional data provided by foreign sources in communication with colleagues when solving medical problems [1-5].

Therefore, at the present stage of medicine development, taking into account its development trends, a medical specialist is imposed the requirements related not only to his professional activity, but to his ability to develop as well. A specialist who is able to solve professional problems in the conditions of communication in a foreign language, undoubtedly, has a competitive advantage. Linguistic knowledge of a medical specialist gives him the opportunity to navigate in new achievements in his field of specialization, to gain new knowledge that he can apply in his practical activities. In addition to the fact that a foreign language serves as a conveyor of culture, helps in the education of a fully rounded personality, it is necessary from the point of view of professional awareness of the specialist [6]. Communication in a foreign language becomes an important component in the professional activity of a medical specialist.

The need for mastering the English language by future medical professionals is due to two factors: the dynamic nature inherent to the medical field of scholarly knowledge and the tendency to establish links between different states, which involves communication and experience exchange by medical professionals – native speakers of different languages [7, 8]. That is why, profession-oriented learning becomes a priority area of education renewal. Profession-oriented learning is based on teaching a specialty through a language, language learning through a specialty.

It is this relationship that requires developing new learning tools, the purpose of which is profession-oriented learning.

Thus, the main task of modern higher school is to train a competent, flexible, competitive specialist. One of the important conditions for fulfilling the main task is the introduction of new training forms and innovative technologies in the educational process of the higher medical school. It should be noted that application of information technologies in the educational process of a higher education is relevant and mainstreaming more than ever; so many universities in Russia and abroad use information and distance technologies in the training process.

To successfully solve this task, it is necessary to closely link the entire training process with the conditions and the content of future information activities of the specialist. In other words, the whole process of teaching a foreign language should be as close as possible to the model of real professional activity of a medical specialist when using a foreign language as a means of information activities, as a means of professional communication – direct (oral speech) or mediated (reading). This involves solving a number of tasks, in particular:

- identifying communicative needs of a medical specialist when using a foreign language;
- determining the types, spheres, topics, typical situations of specialists' communication in a foreign language;
- defining the nomenclature of communicative tasks that ensure implementing the specialist's communicative intention;
- concretizing speech and language material necessary for implementing the specialist's communicative intention [9].

2 Materials and methods

To solve these tasks we undertook a research which used a complex of methods: the study and analysis of scientific literature on the research topic, a survey using the developed

questionnaire; methods of mathematical statistics for processing the results obtained during the survey. The survey was carried out among medical specialists of different categories working in medical institutions of the town of Cheboksary of the Chuvash Republic.

In the course of the study, our purpose was to determine the communicative needs of a medical professional when using a foreign language, namely: levels of language proficiency according to self-assessment performed by informants of different categories; opinions of medical specialists on the need to improve the level of proficiency in a foreign language; areas of communication in which medical professionals have to use a foreign language; the needs of medical specialists in improving the form of work in the reading process; types of oral communication of medical specialists.

3 Results

The results of the survey are the following:

1. Most of the surveyed medical specialists of different categories consider it necessary to have and improve the level of proficiency in a foreign language in order to use it as the means information activities, the means of systematic replenishment of professional knowledge, the means of communication (90% of all respondents). However, judging by the survey results, the attitude of medical professionals working in different fields to the importance of a foreign language for their professional activity is different: to a lesser extent the need in proficiency in a foreign language is noted by doctors of polyclinics.

2. The most common is the educational and professional sphere of communication in a foreign language (75% of respondents); however, medical professionals quite often use a foreign language in cultural and everyday spheres of communication (50% and 35% respectively). A foreign language receives little use in the sphere of social and political communication (2%).

3. Being asked about for what purpose a medical specialist needs a foreign language, what his communicative needs are, that is, what forms of communication in a foreign language he uses most often – direct communication (speaking and listening comprehension) or mediated communication (reading) – the following answers were received: 87% use a foreign language when reading special literature; 5% – for participation in symposia, conferences and other international meetings; 3% of specialists prepare for short-term or long-term foreign trips; 5% have to work with foreign colleagues.

4. When turning to profession-oriented reading, a medical specialist encounters various genres, types of literature: first of all, with periodicals (71%), quite often with monographs and descriptions of medicines (32%) and much less often with other types of literature – with scientific documentation, equipment description, patents, foreign correspondence, etc. The purpose of referring to special literature, as informants indicate, in most cases is to find specific ways, methods of solving the problem, as well as the need to satisfy the interest in the new.

5. There is a tendency to increase the communicative needs of a medical specialist in oral forms of communication. Oral communication of medical specialists includes joint professional activities, preparation of scientific reports, and participation in the discussion. The main sphere of oral communication is the official and business sphere: exchange of experience (17%), getting to know specific methods (12%), meetings, presentations, greetings (9%), acquaintance with a clinic (5%) etc.

The analysis of results obtained after surveying medical specialists makes it possible to draw the following conclusions:

1. Since a specialist's communicative needs when using a foreign language are primarily pragmatic, the whole process of teaching a foreign language must be profession-

oriented, be subject to the main professional activity of a medical specialist, and contribute to solving professional problems.

2. Taking into account the communicative needs of a medical specialist, the main purpose of teaching a foreign language should be considered to be teaching profession-oriented reading, forming the ability to extract necessary information from a scientific text depending on the communicative task of a specialist, mastering the ability of “flexible reading”, that is, the ability to use different types of reading: from searching the necessary information to its total reading and sometimes full translation.

When selecting speech material for reading, it is necessary to take into account the specifics of different genres, types of scientific medical texts, which a medical specialist has to use – periodicals, monographs, abstracts, descriptions of new drugs, etc.

3. Due to the increasing importance of oral forms of communication for a medical specialist (speaking, listening), oral speech teaching should be considered as the second purpose in teaching foreign languages. Based on the communicative needs of a specialist, when teaching oral forms of communication it is advisable to proceed from the situational thematic organization of the educational material, that is, to teach oral speech on models of typical situations, characteristic of relevant spheres, situations of real communication.

4. Given the interdependency between the teaching purposes and its content, the following seems necessary in teaching profession-oriented communication:

- to select communicative minimums, including topics, typical texts for reading, educational situations of oral communication, close to real life situations, first of all, to professional communication;

- on the basis of statistical and informative analysis of oral and written communication forms, to select language minimums (language means), inherent to different types, spheres of communication, ensuring implementation of a medical specialist’s communicative intent.

4 Discussion

4.1 The topicality of creating an on-line English course for future medical specialists

There are now rapid changes in the educational field under the influence of a variety of factors ranging from globalization and national politics to existing epidemiological situation, which forced higher school teachers to turn to on-line training. This decision of the state governing bodies was forced, dictated by the wish to preserve the health of citizens. Complying with it, teachers had to master new teaching methods without the least delay.

Almost all human activities use information systems. It can be noted that the use of information technologies in the educational process of higher school is a priority. Higher educational institutions today found themselves in the situation where it is necessary to make a digital breakthrough. On the other hand, teachers now have a unique opportunity to learn all that has long been postponed and to significantly revise their educational and methodological materials. That is why focusing on the applied nature of English, the creators of the course in the future plan to implement it in the form of e-learning, with the help of distance learning technologies. For this purpose, the authors took advanced training courses on the program “Technology of Creating On-Line Courses” with the study load of 36 hours at the “Volga State Technological University”.

Distance learning using information and communication technologies is an attractive form of studying for many students due to a number of reasons. First, it provides an opportunity to obtain education without stopping the working career; secondly, the student

does not need to come to an educational institution, i.e. both economic and time costs are decreased. In addition, the trainee has the opportunity to choose the speed of mastering the material that suits him (follow self-paced training), independently organizing the studying process.

However, examining the opportunities and limitations of using remote access learning resources for medical students, we found that very few studies are devoted to this problem. They compared the effectiveness of using the Internet in the teaching process with traditional forms of studying and found a positive trend, but noted that to confirm the advantages of training with the help of distance learning technologies, it is necessary to have a larger volume of statistically reliable data [10-13].

Having analyzed a number of studies on the features of teaching foreign languages using distance technologies, we concluded that when developing the methodology it is important to take into account the following opportunities arising from the use of distance learning:

1) convenience due to the opportunity of storing and systematizing the educational material and the ability to edit it depending on the needs;

2) wider communication opportunities, because there is an opportunity for the students to communicate not only with each other and the teacher, but with colleagues from abroad as well;

3) maintaining control over the educative process by the teacher to verify knowledge and analyze the prospects for further studying the material;

4) determining the time, pace and speed of studying the material by the student himself [14]. At the same time, the role of self-control as a condition for further self-education increases [15].

Researchers consider the process of informatization in foreign language learning as a system that is built on three levels: methodological-technological, system-integration and conceptual – strategic. It is their totality that will give the opportunity to create and implement an environment that enables to systemically teach foreign languages [16]. The first of these levels is basic and forms the skills and abilities in certain types of speech activities using information and communications technologies; the second – uses the resources of one electronic educational environment for synthesizing technologies and methods of training; the third level involves modernization of existing educational programs taking into account informatization [17,18].

The use of distance technologies in the learning process has become an integral part of studying at the university as a whole; the same trend can be seen in profession-oriented teaching a foreign language. It should be noted that the use of online technologies has only recently begun its development, increasingly revealing its potential during its development.

4.2 Features of the organizing professional and business communication of medical specialists

The purpose of the authors is to develop and create an online English language course to intensify the process of teaching medical specialists communicative tactics of professional and business communication in a foreign language taking into account their communicative need [19].

Organization of professional and business communication for medical specialists is a complex process of forming communication skills and abilities and their management. Training future medical professionals to hold professional and business communication consists in restructuring the nature of training taking into account individualization and differentiation of training and the use of certain techniques of suggestopedia, in selecting and organizing the educational material in thematic and situational complexes against the

background of doctors' professional activity, in organizing the foreign language material in the form of a training-conversational game and in creating a complex of controlled speech activity of students.

Training future medical specialists to hold oral professional communication in a foreign language on the basis of controlled speech activity is understood as training which controls the acquiring of a foreign language material by trainees at each stage of training and introduction of the learning material depending on the nature of the previous one.

For effective training of future medical specialists to be able to communicate orally in their professional field in a foreign language on the basis of controlled speech activity, the following conditions are necessary:

1) the content of oral communication should correspond to the learning material specified in the training program;

2) students' activities should be organized in such a way that there is a real opportunity of creating common communicative text dialogues at different levels of their activity;

3) there should be conditions for constant and diverse variability of using foreign language speech material in accordance with changing and potentially possible conditions and circumstances;

4) various techniques of oral communication in speech (in unity of impact, reaction and contact) should be mastered in accordance with the existing conditions of activity [20].

4.3 Methodology of an English course for medical students based on their communicative needs

In order to train future medical professionals in professional and business communication, we created a course "English for Medical Students". This course was created taking into account the functional and psychological features peculiar to this contingent of students as well as specifics of their future work activity, past language experience and specific aims and objectives.

The course is designed for an advanced stage of study and consists of three stages; each foresees a certain number of hours.

The first stage develops elementary professional dialogical speech and prepares future doctors for conversations on professional essential topics related to taking the history, examination of patients. The first stage of training is given special importance, as it lays foundation for further mastering speech for the needs of professional communication.

At the second stage of training, the skills laid down at the first stage are improved, the subjects of professional conversations are expanded and complexified, and the skills of oral professional speech in a foreign language start to develop using which trainees are able to solve special professional problems: conditions for the development of various diseases and main symptoms, timely making the diagnosis of the disease and appointment of an appropriate treatment.

The objectives of the third stage are activation of learning a foreign language, automation of the acquired knowledge and the ability to choose language means adequately to the subject and situation. All work at this stage is aimed at mastering professional activity in the studied foreign language: questioning the patients, familiarization with the case histories of newly admitted patients, carrying out clinical conferences, the most difficult cases to diagnose, lethal cases, etc. At this stage, we also paid attention to the formation of medical terminological competence.

The planned three-stage training system for future medical specialists makes it possible to consistently and purposefully incorporate the studied language phenomena into the sphere of verbal communication, organically linking the foreign language under study with the tasks of verbal communication held by health workers. All training phases are derived

from the professional-thematic integrity of educational materials, due to the logical sequence of their parts.

All stages of training in professional and business communication are divided into educational cycles, which are understood as a series of classes (3-6) of this course, connected by a single professional topic.

To implement the course in the stated sequence, we created methodological instructive materials in which the material is organized in the form of thematic professional dialogues with their parallel translation into the Russian language. This course on training future medical specialists in professional and business communication is organized on the material of situations of their future practical activities, which provide material for the introduction of speech models designed in the form of speech exemplary sentences. Dialogical speech of medical specialists represents separate functionally related utterances generated by the structural specificity of a dialogue in unity with the activity of speech communication. The conversational foreign language patterns presented in the dialogues reflect the relationship between the intentions of medical professionals and their language implementation in general situations of natural professional communication, allocated on the basis of the survey.

The method proposed by the authors of training medical specialists in professional and business communication consists of the following stages of work:

1) the stage of presenting a model of professional communication in a foreign language in the unity of the situation of communication, the text-dialogue and the structure of interaction of auxiliary communicative means;

2) the stage of processing the foreign language material;

3) the stage of working on the speech utterance structure using substitutional speech blocks;

4) the stage of organizing natural communication in the process of solving professional problems by health workers.

The principle of communicative teaching medical specialists to hold professional and business communication in a foreign language is ensured by the system of situational exercises and is implemented by the fact that all speech actions of health workers are included in their actual professional activities. The essence of communicative exercises of a situational nature is to encourage students to perform speech actions through certain incentives.

The first stage involves presentation of a foreign language sample and includes several techniques:

a) the teacher's dramatization of a dialogue in a typical situation of professional activity of a medical specialist, which involves the initial acquaintance of trainees with the language material;

b) dramatization of a dialogue with motivated address to students with questions.

The second stage in this method of training in professional and business communication offers the development of a foreign language material through a series of pre-speech exercises. These exercises are built on a functional basis, promote mastering of individual elements of dialogical speech and organize the activities of students in such a way that reproducible speech actions are nothing more than separate acts of their professional and business communication. These include:

a) exercises "informative questions", the purpose of which is to obtain information of a reference nature, clarify some circumstances;

b) questions and re-asking;

c) exercises "make up questions";

d) making sentences by the given samples;

e) questions with multiple answer options;

f) replacement of some structures with others characteristic for communication of medical professionals;

g) transformational exercises for working out difficult grammatical structures in the form of advice to patients, instructions to nurses for procedures, referring the patients for analysis and consultations to other doctors.

Methodical techniques used at the third stage, the stage of working on the structure of a speech utterance with the replacement of individual speech segments:

a) making statements replacing one or two elements of the model, respectively, a real speech situation;

b) presentation of certain factors (complaints of malaise, the presence of serious diseases, etc.) with an indication to react to them;

c) exercises in completing a statement by deploying this particular situation;

d) exercises in expanding the utterance using colloquial formulas and dialogical unities typical for communication of medical specialists at the professional and business level;

e) making up statements by individual replicas, questions, proposals and managing the conversation during its development;

f) exercises with some elements of “stage tasks”;

g) performance of communicative sketches by medical specialists.

The fourth stage in mastering professional speech in a foreign language by medical professionals is made of methodological techniques and exercises focused on modeling the situation that provides generation, semantic perception and communicative interaction of utterances on a professional basis and simulation of controlled professional and business verbal communication by medical specialists in educational classes:

a) exercises in modeling communication of health workers on the basis of textually presented situations;

b) exercises in modeling communication of health workers on the basis of professional monological texts;

c) exercises-discussion on the basis of professional monological texts;

d) exercises in modeling communication of medical workers attracting various visual aids: training models, review thematic and situational and communicative pictures and videos.

The final stage in this methodical system of training represents free speech communication in the process of consistent implementation of motives embedded in multiple activities of medical specialists.

Thus, the proposed complex of exercises is a set of conditions that simulate real professional-verbal communication of medical specialists, pre-speech and speech tasks solve the following tasks:

a) ensure the strategic orientation of speakers' utterances;

b) assume the implementation of those relations of communication participants that exist in the real professional communication of health workers, thereby ensuring natural motivation of utterances;

c) educate the speech activity of students, maximizing their knowledge, experience, imagination;

d) help to overcome the “psychological barrier” in speech communication of students;

e) provide verbal and structural variety of speech material;

f) provide the opportunity to combine speech material as much as possible.

Exercises of this complex are fully aimed at “programming communicative speech activity” of medical workers, with the help of which communication is carried out, performing its universal function.

5 Conclusion

The authors used the results obtained during the study in the developed and created by them courses for students of the Medical Faculty of FSBEI HE “I. N. Ulianov ChuvSU”: “Spoken English for Medical Students”, “Clinical Terminology for Medical Students”, “Talking Dentistry for Medical Students”.

The use of distance technologies in the learning process has become an integral part of studying at the higher medical school as a whole; the same trend can be seen in profession-oriented teaching a foreign language. At the same time, it should not be forgotten that the educational process should be built methodically correctly, i.e. it is important not to lose the positive and long-founded advantages of traditional training methods. When creating a training program using distance technologies it is necessary to be guided by its main purpose – convenience and accessibility of obtaining new knowledge through direct communication of all the participants in the educational process.

At this, the whole process of teaching a foreign language should be as close as possible to the model of real professional activity of medical specialists when using a foreign language as a means of their information activities and as a means of professional communication, i.e. their communicative needs must be taken into account.

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