INTEGRATED METHODOLOGY FOR THE DEVELOPMENT OF COMMUNICATION SKILLS OF MEDICAL POSTGRADUATES

N. Olkhovik, A. Vozdvizhenskaya, E. Lipatova
North-Western State Medical University named after I.I. Mechnikov
(RUSSIAN FEDERATION)

Abstract

Purposes, content and methodical framework of discipline “Foreign language” in the postgraduate course should comply with the latest Federal State Educational Standards for Higher education and current labour market demands. Communicative capacity of foreign language learning in postgraduate course contributes greatly to the development of general professional competence, e.g. communication skill of a future academic and his/her readiness to participate in international scientific and educational discourse. A shift in the discipline’s goal-setting determines urgent needs for the modernization of methodological system of Foreign language teaching. With the new approach, its effectiveness will improve due to the integration of new aims and types of learning activities into blended learning environment, which will then result into higher students’ motivation. Innovative pedagogical approaches to teaching (flipped classroom, scenario-based-learning) and facilitation of postgraduates’ self-study with the proper online resource unite objectives of contact hours with self-study activities and ensure the commitment to continuing education, professional and personal growth. Control and assessment data for Integrated methodology for the development of communication skills have justified its introduction into Foreign language course in the 3rd cycle. Level of course satisfaction has also proven to be high as shown by the outcomes of questionnaires offered to postgraduate students.

Keywords: communication skills, integrated methodology, blended learning environment, scenario-based learning, flipped classroom activities.

1 INTRODUCTION

For decades the main goals for the 3rd cycle education in the Russian Federation (including foreign language studies) were: in-depth studies of research methods and theoretical foundations in the chosen area; formation of necessary skills for independent research activity; conduction of scientific work; advancement of the foreign language command; passing qualifying exams; generalizing research results in the form of a thesis [1].

An unbiased analysis shows that neither of the disciplines in the 3rd cycle curriculum was aimed at communication skills formation in the future academics, since this was not requested by educational standards [2]. In the course of future doctors training, Foreign language learning was not associated with communication skills enhancement for the use in professional area as well. It rather concerned preparation for international certificate exams that enabled students to work overseas.

The new Federal law “On Education in the Russian Federation” [3] adopted in 2012 introduced a lot of changes into the whole of HE system, the 3rd cycle in particular. Postgraduate course now became the highest educational cycle; its purposes and objectives, content, methods and results were reformed.

New Federal State Educational Standards of HE (2014) [4] in different fields of studies in the postgraduate course set the following goals: postgraduate course now (i) results into a wide range of universal professional competences encompassing different types of skills, communication skills included; (ii) refocuses enrollees to research and scientific activity; (iii) facilitates postgraduates’ integration into the global academic community. All the three goals are impossible to achieve without the formation of proper communication skills for scientific and academic discourse.

Such factors as current social and economic situation, demographic changes, appearance of the network society, and the processes of globalization and technification of the means of communication define the range of communication skills necessary for a future academic. These embrace the skills to: express one’s opinions in the proper scientific style; present the outcomes of one’s research; describe the programme of international cooperation; compile a proposal for cooperation; prepare presentations; write articles and abstracts; fill out proposal applications; follow ethical rules and sociocultural codes of international academic communication; use scientific interlingua; resolve potential conflicts successfully;
minimize the risks of digital communication. We have to accept these skills to be the new ones for the context of communication competence development at the 3rd cycle of the Russian educational system, which brings us to the necessity to identify the communication skills to be specific for the postgraduate course at medical HEIs.

2 METHODOLOGY

Current study is aimed at the development and testing of Integrated methodology for the enhancement of communication skills in future academics in medicine. Integration is achieved through the coordination of the new communication skills, methods of their building and the impact on students’ motivation aimed at lifelong learning.

To determine the basics of Integrated methodology for foreign language teaching we adapted communications skills that are important for modern employers in the professional activity of the future academics in medicine. Suggested communication competence model is built on the synthesis of European practices and understanding of communication skills [5], [6] and their tailoring to Russian culture, language, social aspects of the scientific and academic discourse.

<table>
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<tr>
<th>Oral skills:</th>
<th>Writing skills:</th>
<th>Digital skills:</th>
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<tr>
<td>1. visual information description skills (graphs, tables, medical tests results);</td>
<td>1. skills to describe the program of international cooperation;</td>
<td>1. skills to successfully incorporate digital format into communication;</td>
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<tr>
<td>2. skills of opinion expression in the proper scientific style;</td>
<td>2. skills to compile a proposal for cooperation;</td>
<td>2. skills to realize and minimize the risks of digital format use in communication.</td>
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<td>3. skills to present the outcomes of one’s research;</td>
<td>3. skills to prepare presentation;</td>
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<td>4. skills to describe advantages and disadvantages of the object (process);</td>
<td>4. skills to write article abstracts;</td>
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<td>5. skills for a job interview;</td>
<td>5. skills to fill out a grant proposal;</td>
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<tr>
<td>6. ethical communication skills for medicine.</td>
<td>6. skills to write a CV.</td>
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Figure 1. Model of communication competence of a future academic in medical sphere.

The skills in question fall into three categories: writing, oral and digital. Oral and writing communication skills are typical of any specialty. In this model, however, they have medical specificity, e.g. possessing ethical speech tactics. Digital skills section in communication competence is already universal for many professional spheres in the XXI century.

At the same time we have to highlight that digital skills as a component of communication competence bear a high importance for both medical and academic spheres. These fields are traditionally reluctant to fast changes in the means of communication due to their interactive nature, since face-to-face communication is undoubtedly very efficient here. It is proved first of all by the emotional factor that is weighty for the outcomes of communication process in ‘doctor-to-patient’ and ‘teacher-to-student’ situations. However, nowadays widely spread digitized channels of communication in medicine and teaching pose the urgent necessity to equip future specialists with proper skills to use digital ways of interaction safely and productively. It steers educational process in modern universities to the search for new and effective pedagogical practices of adapting to the new formats of communication and to the reasonable use in our own practices.

The suggested new communication competence has a multidisciplinary nature and includes linguistic, methodological, psychological and pedagogical skills, which signifies interdisciplinary character of modern professional communication. Thus, building new communication competence is only possible...
with the synthesis of methods of humanity subjects, e.g. Pedagogy, Psychology, Conflict resolution, Russian language, Foreign language and online teaching practices that will add a ‘digital value’ to the communication development process. This ‘digital value’ will subtly provide the student with a mechanism to treat digital channels of storing, exchanging the information as a part of their future professional activity.

Besides, analysis of curricula and work programs of postgraduate courses in RF (including medical spheres) shows that the content and capacity of humanitarian disciplines doesn’t cover modern needs in communication learning of a future academic. Nonetheless, the developers of the 3rd cycle curriculum should pay more attention to communication in academic community since previous cycles do not deal with this type of activity. In particular, the 1st and 2nd cycles of medical education are aimed at development of professional competence and skills for ‘doctor-to-patient’ communication. Still, we have to bear in mind that the purpose of the 3rd cycle is to prepare a student for research study, its presentation and active participation in the global scientific and academic environment.

Also we have to stress, that the above mentioned facts are of high importance for Russian medical HEIs, because the 1st cycle prepares general practitioners for the domestic market and only the postgraduate course with its new goals directly orients graduates on participation in global collaboration in the scientific and academic sphere. It brings us to the necessity to set new goals for the discipline ‘Foreign language’ at the 3rd cycle of medical HEIs from “enhancing foreign language command” to the development of skills for professional communication. Modernized functions of medical postgraduate preparation lead to reconsideration of traditional forms and methods of teaching and introduction of new pedagogical approaches.

With all the described needs and conditions that follow from Federal State Educational Standards of HE, in 2017 Foreign languages chair at North-Western state medical university named after I.I. Mechnikov (NW SMU) initiated a shift from traditional tasks and objectives of foreign language preparation. A new study program was designed for discipline “Foreign language” [7]. It offers innovative teaching methodology that forms necessary for a future academic communication skills.


Textbook «English for academics» (Cambridge University Press) [8] was used as a methodological support for the program as it fits the requirements in Federal State Educational Standards of HE best, offers authentic and universal tasks and helps to train the skills of all types of communication. With all the assets, real teaching practice based on «English for academics» disclosed the needs to (i) create supplementary didactic materials for self-study; (ii) tailor the tasks offered in the textbook for each students’ field of preparation; (iii) develop extra activities for students to train communication skills in real-life situations.

Taking into consideration all the described facts Integrated methodology for the development of communication skills was offered for NW SMU postgraduate students. It united innovative pedagogical approaches to teaching and learning: flipped classroom learning, scenario-based learning and online resource.

Today flipped classroom and scenario-based learning are still very new for Russian pedagogic practices, though in European and American countries they have been successfully used for about 20 years. Their efficiency has been proven by a big number of international studies that concluded that they enhance students’ motivation for studying and progress because they help to train the habit of self-learning and put educational process into nearly real-life conditions [9], [10], [11].

For example, flipped classroom learning is aimed at transforming traditional principles, sequence and methods of teaching. As S. Mithun and N. Evans found out experimentally, flipped classroom method application leads to building new habits of students’ self-study and activates their motivation drives [12].

Searching for the ways of flipped classroom integration into our teaching practices we have to agree with J. Day’s suggestion, that this approach implies prearrangement of online resource (video lectures, learning material, digital scenarios) on educational platform [13]. Before going to class, students have to study thoroughly all the suggested materials. During the contact hours students perform individual, pair and group tasks under teacher’s supervision. The tasks are aimed to check if students understood
the material in a proper way, if they are able to put the knowledge they got into practice and build necessary skills.

While compiling the online resource for a flipped classroom activity we followed ideas by J. Bergmann and A. Sams to consider individual and group needs, such as students’ age and psychological characteristics, their preferable learning style, future professional area [14]. It is also important to choose a proper method for information presentation: short videos, video lectures, internet search tasks, working with databases. Teachers may use both: videos with internet open access and specifically prepared videos. The second way may seem time-consuming and requires adequate equipment, but it will best fit the needs of the suggested course.

Also, flipped classroom use offers students opportunities to choose the place and time for study, which trains discipline, responsibility, ability to work independently. Although some studies on flipped classroom activities highlight teachers’ worries about students’ reluctance to study theory on their own, practical application shows the opposite. Input tests of different forms (paper tests, digital tests, tests in computer applications) suggested for students every contact lesson rise their motivation for better preparation [15].

Unlike traditional ways of teaching, flipped classroom is based on active teaching and learning methods, such as discussions, debates, case studies, scenario based learning. Importantly, these methods lead to the change of teacher’s role in educational process: teacher becomes a mentor who aims to facilitate students’ cooperation, to consult students in difficult situations and to assess their performance [16].

Thus, flipped classroom method unites different types of teaching and learning activities, minimizes risks in misunderstanding and misinterpreting information, coordinates student’s self-study and contact work.

At the moment scenario-based learning (SBL) is another productive pedagogical approach. Use of flight simulators for pilots and mannequins for training clinical skills has had positive effect as shown by many international experts [17], [18]. SBL follows the principle of case-based learning stating that educational process is more fruitful once it imitates student’s further professional activity.

While working with a scenario students analyze its story line and single out the problems they will later need to solve. In the process of scenario solving they should also apply acquired knowledge and skills of critical thinking. SBL falls perfectly in the course of competence-based approach in education, since it integrates knowledge and skills and focuses students on completing the goals set at the beginning [19].

Communication skills development is a paramount goal in many leading medical universities in Europe today [21]. With this in mind, we assumed that the use of SBL will benefit in postgraduate course teaching as well, as graduates of the 1st and 2nd cycles will take it as a necessary challenge that will boost their motivation. Besides, SBL creates a solid link with their future professional activity and demonstrates possible pitfalls in communication situations in academic environment.

Teaching experts single out 3 types of scenarios: linear (students can not change the scenario direction and have to follow the plot that was suggested by the author); semi-linear (students can partly change the plot of the scenario); branched (students choose the route and direction of the scenario themselves). Online programs and apps for training specialists in different areas have become highly popular recently. They simulate real-life situations in an exciting way and teach students to act as a specialist with all the decision-making responsibility [19].

European experts in SBL from St. George’s University of London believe that virtual scenarios are priceless experience for students because they create a comfortable environment for trainees in which mistakes are not fatal and students are not that afraid to commit them to test their knowledge and skills [18], [19], [20].

As experts suggest, scenarios should be built according to certain rules and should be based on real-life events and stories. When compiling a scenario one should define 1 to 4 targets for solving and build a plot in accordance with Freytag’s Pyramid rules: opening, aggravation, climax, ebving, ending. Following this pattern a teacher will create a product that will be attractive, interesting and motivate students to high performance.

We attempted to develop scenarios following European recommendations and experiences in communication and clinical trainings. Our scenarios, however, were adapted to the needs of the students of the 3rd cycle - future academics, social and cultural specificity of the Russian mentality. Here is one of our scenario examples:
“You have been asked to lead a small project group within your department. When your group was gathered, you were glad to see that your colleague Bob had been appointed to your team. Bob is a young clever man who is always full of interesting innovative thoughts and ideas that he successfully realised in a few previous projects. However, Bob has reputed himself to be irresponsible and undisciplined as he has always been late for the team meetings and come unprepared.

A day ago you took notice as two colleagues were discussing Bob’s participation in the project. They really wanted Bob to leave the team as he was not a person to rely on.

According to the project plan, on Friday evening your team is due to finish a part of the project and to relay the results to another department. Each team participant is in charge of his/her own part, and Bob is carrying out the two most significant ones.

Today is Wednesday, so you schedule a meeting tomorrow morning to check if everything is going up to the timetable and give final instructions if necessary. Moreover, you personally guaranteed the Head of another department to complete the project by Friday evening.

Today you get a call from Bob who informs you that he hasn’t completed his part yet and he has no chances to finish it by tomorrow. He promises to fulfil his part by Friday morning.

1 Roleplay a conversation between two colleagues, who are against Bob’s participation in the team. Imply appropriate emotions to make the conversation real and corresponding to your negative attitude to Bob’s behaviour;

2 Roleplay the telephone conversation between the Head of the team and Bob. As a Head of the team, express your regrets about Bob’s failure and persuade Bob to involve other team members to assist him.

3 Roleplay a conversation between Bob and the Head of the team, where Bob confesses that he didn’t manage the other group members to help him. As the Head, try to find a compromise to resolve the situation. Remember that the Head has given a personal promise to the Head of another team to meet the deadline”.

The suggested linear scenario has one plot with three routes inside to create three conversations. Each conversation doesn’t develop the plot itself, but fits the general idea of the scenario. While performing three assignments, the postgraduates have to understand emotions, attitudes, pragmatics from the plot and use the relevant speech techniques for conflict resolution. Online resource provides them with a set of emotional lexis, functional phrases, both appropriate and inappropriate for non-conflict communication, theory on conflict resolution through compromising strategies, successful practices for conflict resolution and, finally, a kit of questions to check the level of their understanding and awareness of theoretical and practical material. During contact hours the postgraduates are divided into three groups with one assignment each. While one group of students is roleplaying the task, two other groups are monitoring their activities with checklists. The teacher controls the proceedings of the roleplays, students’ interactions and involvement, then analyses their achievements and faults.

Thus, communication scenario drives students to active participation in all the contact hours activities and self-study. Flipped classroom creates the conditions for students involvement into all the learning activities, since this approach contributes into creation of blended learning environment through correlating purposes of contact hours and self-directed work, raising students’ independence in learning activities and then fostering the habit for continuing education.

3 RESULTS

Two-year experience of Integrated methodology application has resulted into the following pedagogical milestones, that we took into consideration for the creation of blended learning environment for communication skills development at NW SMU:

1 As a methodological toolkit of the course, we developed an online resource integrated into the Moodle LMS. This resource includes eight lessons whose themes fully comply with the themes presented in the thematic plan of the discipline study program.

2 Each lesson of the online resource consists of a 5-minute video lecture and/or presentation on the theme of the lesson, a virtual scenario including a certain communication pitfall or interpersonal conflict in the academic sphere, and a set of assignments aimed at checking general and detailed understanding.
3 Self-directed study is related to the goals and objectives of the classroom. While assigning tasks for self-directed study, the teacher divides the group of students into subgroups of 3-4 members, inviting them to prepare for the solution of the scenario. This task is accompanied by a list of key functional phrases, communication tactics and strategies for creating a successful communication situation and theoretical commentary on conflict resolution.

4 At the beginning of each lesson, the teacher offers a short test to check the understanding of the materials that postgraduates studied individually. Also a 15-minute language training is carried out to equip students with needed language skills.

5 Having analysed the scenario before the lesson, postgraduates roleplay the assignments and monitor the relevance of their communication strategies and correctness of speech through the checklists. The teacher acts as a mentor, adjusting students’ involvement, emotions, attitudes and assisting in assessing their performance.

6 At the end of each semester two control lessons are held in the simulation centre where the roleplayed test scenarios are videorecorded, then the students and the teacher analyze the videos using the assessment lists. This type of control allows to form the skills of self-evaluation and self-assessment.

Thus, the implementation of the Integrated methodology in the course of Foreign Language for postgraduates resulted in a number of positive learning outcomes. Firstly, a shift from traditional teacher’s role of an expert to a mentor who directs and corrects students' speech contributed to fostering postgraduates’ habit to continuing education in the field. Secondly, language skills of postgraduates were improved through self-directed study exercises in the Moodle LMS and continuous monitoring and control of their speech activity in the classroom, which compensated insufficient academic hours for the course of foreign languages. Thirdly, a scenario simulated a near-to-real communication and drove a rise in postgraduates’ level of safety before exposure to a real interlocutor.

4 CONCLUSIONS

While testing the suggested Integrated methodology, we constantly monitored its efficiency and assessed the dynamics of postgraduates’ communication skills development. Monitoring and assessment system was presented as checklists for communication scenarios solving. It took into consideration the choice of speech strategies, speech appropriateness and ways of conflict resolutions.

The results that postgraduates showed in test scenarios were 48-87% higher depending on class attendance and proper timing for assignment completion, which proves high efficiency of the suggested methodology.

After the course completion students and teachers were offered questionnaires to find out the level of the course satisfaction. The questionnaires revealed a high productivity off the course as well. 96% of the students agreed that the course was helpful and showed the wish to continue it. Nearly all the teachers involved in Integrated methodology implementation singled out its usefulness in the building communication competence in future academics in medical sphere.

However, not all the teachers involved in Integrated methodology implementation were ready to continue working with it. After chair discussions we found 3 main reasons for teachers’ reluctance:

1 preparation for flipped classroom activities was very time-consuming;

2 selection of the material for self-study and scenario design required too many pedagogical initiatives;

3 unwillingness to change traditional, familiar format of pedagogic activity was very strong.

Overall, only 7% of teachers expressed negative attitudes to the use of the new Integrated methodology. At the same time 93% of teachers showed high interest in the new format of teaching, which is promising as it shows its high efficiency.

In the nearest prospects we intend to work out the ways to decrease teacher’s reluctance to the Integrated methodology implementation into the course of Foreign languages and raise postgraduates’ learning outcomes to the higher rates. A training course on the innovative pedagogical methods for communication skills development will be organized to disseminate good teaching and learning practices and minimize psychological resistance of the teaching staff to novelties and unfamiliar formats of their work. The ways of creating the motivating learning environment for postgraduates will be
identified and integrated into the communication skills development to involve all the students into the course activities and process of continuing education.

REFERENCES


