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Developing specialized linguistic competence in foreign students studying medicine

ABSTRACT

The Medical University - Varna offers instruction for foreign students in Bulgarian and English. Basic task of the Bulgarian language course for medical purposes in both programs is to supply students with sufficient medical lexis, so they are able to pursue academic knowledge and to carry out successful professional communication in clinical settings. The effective development of communicative skills requires certain strategies and principles of teaching. Building specialized linguistic competence is a process that prepares students for the subsequent stages in education. It starts with introduction to general anatomical and physiological terminology and ends up with basic clinical terminology. Since Bulgarian courses in both programs have different linguistic focuses, teaching strategies differ in the mechanisms used to create speech production. The present paper aims to present and to analyze our experience and practice in language instruction for academic and professional communication.

Key words: medical terminology, teaching strategies, methods, communicative competence, clinical environment

Medical terminology lies at the heart of academic and clinical communication. For this reason, it is subject of specific teaching strategies in view of the successive stages in the overall instruction of Bulgarian language for medical purposes. The creation of specialized linguistic competence is a process of methodical and lexico-grammati-

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cal adaptation of foreign students to academic communication. To effectively implement this process, we apply a flexible communicative model focused on the three main objectives of teaching: effective theoretical communication in an academic environment; effective practical communication in a clinical environment; effective doctor-patient communication. The present report aims to summarize the instructional strategies we have used in the course of specialized Bulgarian as "a series of targeted and carefully planned teaching techniques for solving specific communication problems – providing knowledge about the different registers of speech and building communication skills through familiarizing the students with communication strategies in the foreign language". /Eftimova 2004 : 141/

1. Developing specialized linguistic competence in the Bulgarian program

All foreign students at the Medical University study general Bulgarian for one year / preparatory year/, before starting their medical classes. The establishment of a specialized language competence starts in the second semester of the preparatory year with the discipline "Specialized Bulgarian", known also as 'Medical Terminology'. The aim of the discipline is to provide students with: 1. initial knowledge of medical terms mainly in the field of human anatomy; 2. level of linguistic knowledge which allows them to communicate adequately in both academic and clinical environment, i.e. to make a conversation both with colleagues and patients.

However, before creating successful communicators, whose language skills are commensurate with the communicative task, we must clarify the meaning of medical terms and accumulate this specialized vocabulary in the conceptual apparatus of students through a variety of pre-communicative exercises. These exercises aim to help students to learn how to form nouns, adjectives, compound words and phrases. In the pre-communicative stage it is required that lexemes are placed in a minimal context. The most productive types of exercises for building specialized vocabulary are listed below:

1. Exercises to form verbal nouns;
2. Exercises to form nouns from adjectives;
3. Exercises to form diminutives;
4. Exercises to form adjectives;
5. Exercises to form compound words.

Linguistic competence requires from communicators to comply with the rules of the language in order to produce grammatically correct statements. Canale defines lin-

guistic competence as the knowledge of linguistic units at different levels, the rules for their combination and their use in speech acts (Canale 1983:17). Also according to B. Switalla, linguistic competence is "an initial set of rules which helps a speaker to form various new sentences and understands them." (Switalla 1999: 204-205).

In view of the above, we give students a range of tasks requiring the usage of correct verb forms, formation of plural forms, coordination of noun and adjectives, etc. Strategic ability to absorb the linguistic norm applied to specialized medical terminology is achieved through exercises that require from students to make choices and set lexical units in the context appropriate to their semantic and grammatical features. Learning the grammatically and semantically correct form of words in this initial stage of introduction to the medical terminology will ensure correct discourse production in the next stages of medical education.

Another type of tasks designed to enrich students' vocabulary in relation to language precision are those for synonyms and antonyms. In medical terminology there is a high and low register of speech – the first relates to the academic and professional communication and the second relates to communication with patients. In order to communicate successfully in different social environments students should be acquainted with the semantic variations in language to be able to select the adequate to the situation lexem from the synonym row. At this stage of language education synonyms and antonyms are studied in relation to anatomical terms. If in the academic discussion the usage of terms such as erythrocytes, cranial nerve, sternum is appropriate, in non-specialized environment this high register can lead to misunderstandings.

While preparing students for their future work, our primary task is to teach them to ask well structured questions. It is known that there are two main types of questions: wh-questions and yes/no-questions. The main exercise for developing the skills of asking questions is based on specific anatomic texts from which students extract information by interrogation. A student who succeeds in asking questions about the text is obviously successful in perceiving information, defines the topic and the focus of the text, i.e. he/she has a good linguistic and discourse competence. Correctly posed questions indicate successful communication.

"The competence for reading comprehension represents the ability to construct linguistic meaning from a written text". /Kaneva 2008: 231/ Working with specialized adapted texts, students simultaneously apply the skills to extract meaning and to decode, i.e. to recognize and process written information. Understanding of language is based on already acquired linguistic knowledge associated with phonology, syntax and semantics, while decoding is accomplished by means of the lexical

knowledge of learners. To receive feedback whether a text was adequately taken, we apply the method of asking questions related to the content. Through such interaction we get confidence that the process of reading is carried on the cognitive level.

The instruction in Bulgarian for medical purposes in the first two years /4 semesters/ has as its primary goal the development of communicative competencies in foreign students, based on preclinical and clinical terminology. These communicative competences should lead to a successful realization of the medical students in the academic and hospital environment. From this perspective, the key is the choice of communicative strategies, as students in the first and second year are faced with the need to read and reproduce scientific texts with generally descriptive nature. The basis of the process is learning the skills of reading comprehension and speaking. In the classes, the students use the book "Bulgarian for medical purposes" by Assoc. prof. Dr. Violeta Tacheva. The thematic units are 33 and they are divided into 4 semesters as follows:

- first semester - topic 1 to 10;
- second semester - topic 11 to 19;
- third semester - topic 20 to 26;
- fourth semester - topic 27 to 33;

It is noteworthy that in the second year (third and fourth semester) the volume of data is smaller, but this is related to the lesser number of classes in Bulgarian language for medical purposes, which are defined in the curriculum - only 60 against 120 in the first year (first and second semester).

During the first semester the linguistic focus is placed on different morphological units and their frequency in the preclinical medical terminology and in the medical theory and practice. Each topic offers tasks for reading comprehension, as the ones for selective reading are preferred. The goal is that students master the skills to extract information from scientific text for the given task. Reading is an independent action, but the information obtained is necessary to form the basis for dialogue within the group of trained students, so that communication can occur on the reviewed scientific topic. This is a communicative strategy, which requires careful selection of the texts, as their main feature has to be the productivity of the provided information, i.e. they should provoke the critical thinking of students. On the other hand, the textbook texts of anatomy develop the skill of retrieving information. It should build a model of speaking on an anatomical theme. Most often this is a description of an object. The model that students follow is: 1. term for the object 2. location of the object and environment 3. shape of the object 4. size/dimensions of the object 4. colour of the object. Physiology texts, on the other hand, feature de-

scription of a process, so for them a different pattern of speech is set: 1. term for the process, 2. objects/organs involved in the process 3. direction of the process 4. actions of objects/organs involved in the process 5. duration of the process 6. outcome(s) of the process. The correct and precise questioning of both the descriptive and discussion texts is critical for achieving the learning objectives, while questions that involve answers with only "yes" or "no" are completely excluded. Students need skills to produce their own oral (and at a later stage, written) texts on scientific medical topic, so a productive question is one that allows for the construction of the text for the answer. From a strategic perspective, the most successful approach to these objectives is the journalistic paradigm: 1. Who? 2. What? 3. How? 4. Where? 5. When? 6. Why? Applying this model during the development of their speech patterns, students not only learn the necessary communication skills in reading and speaking, but also adapt to the academic language environment.

Another important objective of the training of foreigners in Bulgarian language for medical purposes is the mastering of synonymous syntactic structures, traditionally characteristic of the scientific style and in particular of the style of medical scientific texts. This is the linguistic focus of teaching Bulgarian as a foreign language during the second semester. Based on the knowledge of the foreign students of general Bulgarian language, the teacher focuses on the opportunities which the medical academic text offers in regard to developing their expression. During reading, students learn not only the main functions of the parts of the sentence, but also the types of sentences by composition and purpose of statement. At this stage of learning, the basic strategy is again the dialogue that students are more likely to lead when their task is to create oral texts on the same topic but with different syntactic structures, depending on what is the intention of their speech. As a strategy, here we should also point the induction of controversy and even opposition between the participants in the dialogue, which in turn allows for the inclusion in the speech of lexical and syntactic units that are not restricted to scientific style.

The expected results after the training during the first year are:

1. Students master skills in reading comprehension at a level enabling them to segment text, to extract to the utmost degree the useful information from it and to reproduce it orally, using a variety of language tools;
2. Students are able to create a comprehensive, complete, grammatically correct and logical oral argument on a given topic from the preclinical field;
3. Students are able to distinguish linguistic registers in a speech on scientific problem.

In the second year (third and fourth semester) the choice of reading texts is determined by the need for foreign students to be actively involved in the academic scientific life and not only to reproduce possible theses, but to construct such themselves, complying with the rules of the academic discourse. For this reason, a significant place in the thematic plan for Bulgarian language for medical purposes in the second year is devoted to modes of discourse in medical theory and practice - description, narration, reasoning. It is also important to note that in reading assignments students are required to detect synonyms, antonyms and paronyms in the academic texts. Only after that they proceed to the analysis of the structure of the text in various medical fields - preclinical, propaedeutics and clinical. A key communication strategy at this stage is the preparation of a project on a medical research topic. Students are divided into groups that choose the topic of the project, gather materials, process them, comment on the possible viewpoints, form theses and arrange their arguments. The project is presented orally, as participants can also use nonverbal means of communication such as pictures, graphs, tables, etc. A multimedia projector is also available for the students. The teacher pre-sets evaluation criteria, and we often find it appropriate to allow participants to assess each other, as they take the role of specialists in the given problem. The teacher assesses only the language part of the project.

During the fourth semester the skills for appropriate speech performance are deepened in regard to the communicative environment and from this point of view, a special emphasis is placed on the high and low medical register. In order to enable students to become independent speakers on medical themes, to participate in discussions and to assess the performance of their colleagues, they must have appropriate knowledge of the registers of medical language. In mastering the necessary communicative competences, it is strategically important to use the so-called role-playing games in which students play the role of a doctor or a patient. The focus of the role-playing game "Medical examination" is by asking the right questions the "doctor" to be able to acquire the case history of the "patient" using language means from the high and low medical register, so that he can reach the "patient", earning his trust and being useful to him.

The expected results at the end of the fourth semester are:

1. Foreign students master reading comprehension skills and speaking at level B2-C1 according to the Common European Framework;
2. Students are able to plan and present a speech on their own on a medical problem;
3. Students develop a sense for the use of the high (academic) and low (hospital) medical language register.

Finally, we should mention that the report is based on experience gained from working with foreign medical students in first and second year - Bulgarian program - in the Medical University in Varna, Bulgaria. Bulgarian language groups in different years numbering between 10 and 12 people each and participants from Turkey, Greece, Macedonia, Russia, Germany, Nigeria, Ukraine and Moldova.

2. Developing specialized linguistic competence in the English program

In the difference with the Bulgarian program, in the English program students need specialized Bulgarian only for interacting with patients during their practicals in the hospital. For this reason, the instruction in specialized Bulgarian language for them is focused only on basic clinical terminology (in the first and second academic year students study general Bulgarian and the third year is devoted to medical terminology). The pragmatic needs that the Bulgarian language course has to meet require special attention on developing listening and speaking as communicative skills. Reading and writing are narrowed down mainly to reception of authentic medical documents – medical histories and test results. That is why we put in the center of our teaching strategy the *doctor-patient dialogue* as a context and basic instrument for building specialized linguistic competence. In order to offer adequate terminological preparation, the linguistic material is organized in topics from different clinical disciplines and is presented in the form of simulated situations from the doctor's practice such as medical interview, examinations, prescribing drugs, explaining laboratory results to patients, discussing diagnoses and treatment.

From the very first day of their education in the third academic year foreign students start to communicate with patients. Usually they have to take a history and find out details about patient's current condition, past problems and medication. In order to help students to be successful and effective in their present dealings with the patients, we start the Bulgarian course with:

1. introduction of new language related to the sections of a full case history and the data they have to collect. An emphasis is put on talking about present complaints and the symptoms that must be clarified by questions.
2. training simple history taking activating students' knowledge from the general Bulgarian course for making correctly ordered questions.

In that early stages of building their linguistic and communicative competence students practice mainly asking well-structured elementary questions in limited context. The grammar focus is on the appropriate use of verbal tenses, the correct choice

of adverbs and prepositions related to the different aspects of symptoms such as location, duration, frequency, intensity, quantity, etc.

The next step in the educational process is detailed work on functional language in the different specialties in medicine such as gastroenterology, cardiology, neurology, obstetrics. In each theme students are given the Bulgarian names of internal organs, basic symptoms and diagnoses related to the relevant anatomical system. Communication with patients having different level of education demands good command of terminology not only in the high register, but also its equivalents in the low register. Specialized terms may block the conversation with incompetent patients, so in many cases their common, even jargon equivalents are appropriate to negotiate meaning. That is why stylistic synonymy is an obligatory element in the description and presentation of the clinical sublanguage.

The new medical lexis is mostly incorporated in dialogues, which are simulated doctor-patient interviews, doctor-doctor and doctor-nurse conversations. By a range of exercises based on focused listening or watching recorded interviews students learn how terminology functions in real communicative situations – how patients refer to a given part of the body when they speak about their problem and how doctors relate to patients. This way they receive ready for use language constructions which to integrate in their own conversations with patients; train their receptive skills and ability to summarize the obtained information; adapt to different speed, accent and style of talking of native communicants.

Another important communicative technique for building specialized linguistic competence is role-playing. In the role play, students work in pairs to simulate taking patient histories. It is a means by which they can progress from reproduction of dialogues made by foreign speech model /imitation/ to generated by themselves dialogues applying the acquired language competences /Tacheva 2011:16/. The dialogue performance is a good rehearsal for the communicative challenges in real hospital environment giving students the best opportunity to activate and assess their linguistic and medical knowledge. The discussions among the group after the role-play activity stimulate students to identify and reflect on linguistic errors and make suggestions for correct grammatical or lexical alternatives. Thus students can learn from each other, extend vocabulary and train different ways to successfully communicate meaning.

Unfortunately, the short time students have for studying language for specific purposes /180 academic hours/ does not allow achieving perfect command of Bulgarian. That is why in the Bulgarian course a special attention and practice is given to techniques by which students can compensate for some verbal deficiencies by using

synonyms, international lexis, descriptive explanations, comparisons and paraphrasing, repetition, elliptical sentences as alternative ways for them to relate effectively with patients.

In conclusion, the design of effective specialized language course requires good knowledge of students' present and future linguistic needs, development of high motivation in students to study the foreign language and continuous supply with up-to-date and closer to the real situations language activities. Still blended-learning is not exploited enough in our practice but we make our first steps in that direction – integration of new technologies in the process of instruction. The blend of face to face, multimedia-rich and online materials will give us a new perspective to bring foreign students to the final aim of their education – academic knowledge and effective communication.

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