

OUTDOOR ACTIVITIES AS A METHOD IN THE PROFESSIONAL AND LANGUAGE PREPARATION OF THE STUDENTS OF MEDICINE AND DENTISTRY

Slavka Toshkova-Hristozova

Plovdiv Medical University
15a Vasil Aprilov street
4000 Plovdiv Bulgaria

Christina Spasova

Plovdiv Medical University
15a Vasil Aprilov street
4000 Plovdiv Bulgaria

Nevena Dimova

Plovdiv Medical University
15a Vasil Aprilov street
4000 Plovdiv Bulgaria

Ivan Hristozov

Plovdiv Medical University
15a Vasil Aprilov street
4000 Plovdiv Bulgaria

ABSTRACT

The following scientific report accounts for a part of the practical experience of a group of professors of the Medical University in Plovdiv, united by the idea of an easier and more visually teaching of the separate methodological units of the programmes studied by the foreign students of medicine and dentistry during their language preparatory course and their first academic year. An opinion is shared that the outdoor method is an active feature of full value in the educational process of learning Bulgarian as a foreign language. That method also plays an important part in the practical application of curriculum contents in the students' future profession. The seminar as an educational method is an object of analysis in that chapter. The method of the seminar here is presented as of "travelling seminar" uniting the trip with the seminar activity. It is a combination of information about the country, the students study in and generalisation of the already acquired knowledge in medical chemistry, medical physics, and Bulgarian ethnology. One of the routes suggested is a visit in the famous spa bath resort Hisar. An object of observation and assessment are the physical factors of treatment and their practical usage. The principles of the methodological tasks of that kind outdoor activity are presented in the article as well as materials used during the trip. This kind of combined form of education presupposes informality of communication and close contact with the medical staff. It also offers opportunities of assessment of the natural power curing various diseases and it can be regarded as a part of the ecological approach in the medical education.

The object of the presented article is the practical activity of the professors in a specific section of the education such as the language education of the foreign students in Bulgarian. The curriculum emphasises basically on the construction of language skills necessary for the establishment of contacts on everyday life level and words and phraseology connected with that level as well as the enlargement of the minimum command of the language and the professional education. The combination of the linguistic work with the common amount of information which the students have to master and which is concerned with the connected with that level as well as the enlargement of the minimum command of the language and the professional education. The combination of the linguistic work with the common amount of information which the students have to master and which is concerned with the basic problems of the fundamental sciences biology, chemistry, physics is that objective connection, the lack of which makes impossible the existence of the professional qualification of the future doctors.

The Bulgarian language is of a specific importance and it occupies the position of a mediator and the quality of education depends on the level of fluency. The knowledge of the linguistic structure of Bulgarian, as in the case, is only the foundation upon which the additional scientific lexical materials is amassed. The language education is implemented by different disciplines, which broaden the language scope and the students' lexical abilities. From theoretical point of views the combination of language and scientific training is a part of the integrity scheme of the intersubject education.

The medical science is an excellent example of integrated science. The basic foundation upon which its internal scientific differentiation is constructed are the natural sciences: biology, chemistry, physics. The medical science achieves its parallel integrity not with the fundamental sciences as a whole but with such subjects of practical and applied character. In that case the common aspects are the subject: medical chemistry and physics having the importance of linking parts together with the applied sciences: radiology, physiotherapy and clinical laboratory tests. As theoretical subjects in the years of language training they are basically scientific terminology in subjects as: biochemistry, and biophysics which are parts of curriculum of the first and second academic year.

The main professor's objective regarding education is to broaden the area of scientific knowledge in direction of the skills necessary for the process of education. The problem is to find the optimal method of teaching and considering the scientific facts from students with restricted language capabilities and sometimes with insufficient common theoretical knowledge. As a result breaking of the indoor method of education and activation of the educational process occurs through the observation method and the empirical approach. The understanding of the materials included in the lecture not just mechanical consumption of the scientific fact, the research done in the nature of the processes, makes it necessary for the theoretical subjects to search for practical elements in the educational materials taught in the university.

It is understandable that not all methodological units create the opportunity of visualisation of the theory. That to some extent adds an element of "routine" during the lectures that it is a confirmation of the classical educational methods such as the lecture and the seminar.

While educating students with professional orientation and motivation who consciously take part in the educational process, it is absolutely essential all the existing methods to be put into practice, including outdoor activities. What are the basic proofs of that statement?

According to the didactics, the educational process is a cycle of acquiring and considering new amount of knowledge, skills and practical activities. All pedagogical methods - common, private and methodological are subordinated to the basic educational purpose - obtaining maximum result during the process of education. The form of its organisation - indoor or outdoor, is a right choice, which is adjusted to the topics, opportunities and the aims of the educational activity. Together with the already familiar forms of outdoor activities like the evening of friendship and nationalities, the different meetings dedicated to mutual interests, participations in students' clubs and conferences we offer an outdoor activity with a combinatory character, such as the so called "travelling" seminar - a combination of a trip and a seminar. The term can be regarded subjectively but it attracts the attention and it matters when people work in heterogeneous linguistic environment - in group with different educational levels and skills. To be more precise we have to mention that we add the specialisation doctors to that first year of Bulgarian language training who are eager to participate in such a form of education.

In the methodology, the educational trip has to meet the requirement of a particular educational problem and through the method of observation an easier memorising of the amount of information is achieved. Having in mind the level of student's linguistic competence the seminar as a classical form of discourse on specific topic formed in advance with the necessary plan and literature is inapplicable during the year of linguistic education. To explain practical performance of the outdoor method of work we can mark a couple of problems:

- The enlargement of the amount of lexical unit which is helped by the fact that the students enter a new language environment - creating variants of combining relative topics on several sciences, which increases the scope of information.

- An attempt of synthesis of the acquired knowledge which practically means realization of inter-subject training.

The accomplishment of a similar form of seminar is strictly subordinated to the principles of scientific theory and visualization. It has a number of educational objectives:

- language practice and informal integrity of science and language
- possibility of putting into practice the existing knowledge of the special subject
- creating personal relationship with the medical staff
- achieving a considerable psychological effect - a sense of community of the professional environment

- development of social and cultural model of attitude towards the surrounding conditions

- estimation of the curative power of nature and the significance of the recreative resources

- gaining more information about the different aspect of the Bulgarian culture

- historical sites and monuments of art and architecture

The "travelling" seminar is an emotionally condensed form of education creating friendly atmosphere in the communication and making the process of learning easier. That is an opportunity for the student to visit new places and to enrich their common knowledge. It is of no less value and importance than the lecture and the classical seminar form of education and it has its own place in the process of studying.

The organisation of such a form of outdoor activity demands time for the fulfilment of the technical side - the material designed for the student as well as the domestic facilities - transport, night accommodation, meals etc.

A programme which is completed in the best possible way is a good condition for the students to receive more information in scientific and practical aspect, clear evidence of which is the feed-back.

The theme of the seminar is determined by the necessity of the combination of questions of common character referring to some subjects. That brings about complexity and integrity of the research. An example of a topic of a complex character is "The mineral water and its influence over human's health". The theme can be regarded from two points of view - as a part of the common process of ecologization of the medical education and as a combined method of health education.

The first phase of the preparation of the "travelling" seminar is the theoretical teaching which is necessary for observation. It is completed through the method of lecture and includes educational contents mastered at different moments during the academic year. That form of outdoor activity is to be carried out at the end of the period of study.

During the lessons of Bulgarian ethology the preparation for the specific topic is completed through informing the students about the nature of recreative resources. The importance of the physical factors depends on the place of the mineral water and the condition of the climate in connection with people's health and their importance for the prevention against various diseases.

Applying the method of lecture in medical chemistry classes a special attention is paid to the fact that the mineral waters are real solutions /ion-molecule ones/ in which the substances are molecules and ions. Their importance is essential to the human body and words like: blood, lymph, cerebro-spinal liquid and urine are confirmed in biology classes. The students establish a connection with biology through the conclusion that the water and electrolytes are inseparable components of the structure of the living matter. The electrolytes exchange in the mineral water and their research is highly recommended for various treatments.

The role of the ions in the electrolyte balance is taught in the chapter "Catalysis", "Solution and electrolytes", "Complex

solutions". The knowledge which the students acquire contributes to the construction of the scientific information concerning biochemistry. In the chapter "Catalysis" an accent is put over the role of the enzymes as biocatalysts. It becomes clear that the enzymes as the protein substances include metal ions (K^+ , Mg^{2+} , Ca^{2+} , Fe^{2+} , Co^{3+}) which play the role of activators. As the mineral water has different chemical structure, as the inorganic salts are ions it gives the opportunity in the chapter "Solution of electrolytes" special attention to be paid "ph" and in the buffer systems in human body. The most important buffers are "Hydrogen carbon ($H_2CO_3 + NaHCO_3$) phosphate ($NaH_2PO_4 + Na_2HPO_4$) and protein buffer.

The buffer create continuous condition for enzyme action and that of the hormone. The students gather information about the most important substances which are complex compounds and in which the bio metals are included as ions (Fe^{2+} , Co^{3+} , Ca^{2+} , Mg^{2+}) etc

Apart from the chemical properties of the mineral waters, the physical ones are also an object of consideration. When the spa bath treatment as a method of medical practice, the professor puts more effort to the explanation of the mechanical influences of the mineral water, as well as its qualities. The students are already well acquainted with the basic laws, which lie in the chapter "Mechanics of the fluids" and "Thermodynamics", which is a condition for a better learning.

The mechanical influence of water upon the human organism is a practically tested method in the spa bath treatment

A proper example for that are the water procedures which are conducted in baths and pools. The pressure at the bottom of the pools and the baths is bigger than that on the surface. So it gradually decreases and it has the effect of a gentle massage over the patient which eases the blood circulation directed to the heart. The student know the Archimedes' law and they can figure the elevating force of the water. What is new here is that the lightness of the body is used to make it easier for the sick people to suffer the pains of illnesses connected with the skeleton and muscles. The students can observe the process in different sanatoria, where underwater gymnastics in a pool with mineral water is a general method of treatment. Water is a unique means of regulating the temperature of the body. By thanks of qualities like: heat capacity and heat conductivity water is quite an efficient transportation system which conveys the produced thermal energy to different tissues, organs and cells. The water possesses greater heat conductivity as a quality. Through gradual and selective usage of different processes, the human body gives or accepts the necessary temperature from the environment. Applying different procedure – cold, cool, neutral

and warm water procedure, they elicit responses from different tissues and systems in the whole body. The blood circulation improves, along with the pulse and the blood pressure. The rhythm of the heart also improves. Physiotherapy and cryotherapy are interesting ways of treatment. They are considered as the coldest water procedure and the students can estimate its local use and their results consisting in the pain relief effect, muscles relaxation, blood circulation.

The theoretical and language preparation is useful for the second phase of the seminar-gathering all the materials for experiment which the participants receive. It includes a programme with a schedule with the hours of departure and arrival and a description of the route.

Instead of a conclusion, we recommend a selection of the methodical units to be made which can combine common moment in the process of study and they are variants in the integral approach during the training. Their practical orientation relies on the provocation and activation of thinking in a foreign language. The elements which lie in the health education presuppose more collective participation of students who specialise and even "guests" from other institutes.

The "travelling" seminar is an active form of training absolutely subordinated to the basic task- better teaching and studying of the academic contents.

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