

## INTERACTIVE TEACHING METHODS AT UNIVERSITY: AN ASPECT OF PEDAGOGICAL INNOVATIONS

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### **Abstract**

*This paper underlines the need of pedagogical innovations in the professional training of pedagogical staff and presents the importance of the application of different interactive training methods in higher education. The author lists different kinds of interactive training methods, different levels of interactions and some of their main characteristics and instruments. It stresses on the importance of the inclusion of interactive training methods in the higher school syllabus and educative work. In this connection the author presents some sample tasks based on the interactive training methods.*

**Key Words:** *Pedagogical innovation, professional training of the pedagogical staff, interactive training methods, sample tasks for interaction.*

## ÜNİVERSİTEDE ETKİLEŞİMLİ ÖĞRETİM YÖNTEMLERİ: PEDAGOJİK YENİLİKLERİNİN BİR YÖNÜ

### **Özet**

*Bu çalışmada, eğitimcilerin profesyonel eğitimde pedagojik yenilik ihtiyacı ve yükseköğretimde farklı etkileşimli öğretim yöntemlerinin uygulamaları üzerinde durulmaktadır. Çalışmada, farklı türlerdeki etkileşimli öğretim yöntemleri listelenerek, bunların farklı etkileşim düzeyleri ve temel özellikleri hakkında bilgi verilmiştir. Yüksek öğretim programlarına etkileşimli öğretim yöntemlerinin dâhil edilmesinin önemi vurgulanmıştır. Ayrıca, etkileşimli öğretim yöntemleri temelli uygulamalar ve bazı örnek görevler sunulmuştur.*

**Anahtar kelimeler:** *Pedagojik yenilikler, eğitimcilerin eğitimi, etkileşimli öğretim yöntemleri, etkileşim için örnek görevler*

### **1. Introduction**

The creation of European educational space is a premise for innovation and reformation in higher education. It is well-known that 'pedagogical innovation is defined as a scientific and pedagogical solution of a research or creative task and is characterized by a newly introduced social practice, usefulness and applicability, as well as by a possible demand for legal protection' (Stefanova, 2005, pp. 5).

Pedagogical innovation is critically needed in the professional training of pedagogical staff. We face the necessity of new quality of teaching and its managing subject-the teacher. Innovation in professional training of pedagogical staff reflects on the quality of its pedagogical and managing activities, as well as on the creation of innovational patterns and techniques in education by the pedagogical staff itself.

The conditions for modernization in the training of future teachers are outlined by Balkanski (2003):

- debates and actions for the configuration of teachers' training (there should be no defensive behaviour or naïve optimism);
- the existence of many different alternatives of the teachers' training policy and also improvement of the social status of teacher's profession;
- the need of applying of complex measures to improve teachers' professional competence in the context of the existing labour conditions and quantity of life.

One of the many possibilities in this direction is the formation and application of new educative technology as a premise of innovation in traditional forms, methods and means of educative work in higher school.

Doubtlessly, an important place in pedagogical innovations (as far as they concern teachers' training) is taken by the application of interactive methods of education which condition the influence on personality by the subject-subject base and the relation of interdependence. The cultural level of communication between teacher and student and student and student is higher; competence is acquired by the students to work in a team (which is defined as a standard in bachelor's degree education)

The advisability of the use of interactive methods at school (including higher school) is defined by the changes in teachers' basic functions. Teachers are no longer simply sources of information, they are also managers, and being in the role of a governing subject, they have to govern and co-govern democratically which suggests the existence of interaction and formation of a number of key social personality traits. The teacher facilitates, helps students in the complicated process of acquisition of knowledge and competence which requires subject-subject interaction and interdependence, communication at the level of empathy; the teacher is a mediator- the connection between students and educational content, between students and the world around them, he is sympathetic and objective at the same time.

We are familiar with the different modifications that the theory of interactive methods includes and they all can be used in students' training. Some of them are: brainstorming (A. Osborn); synectics (C. Gordan); inventics (A. Kaufman, M. Füstie, A. Drevs); check-list (A. Osborn) and others presented by M. Andreev [1, pp.216-218]; also team work interactive methods presented by S. S. Kashlev – team training (C. Hopkins); **training in cooperation (E. Aronson); we study together (D. Consin - P. Consin)**; explorative work in teams (S. Sharan). Methods for the creation of favourable

atmosphere and organization of communication, for exchange of activities, for active thinking, creative thinking and, integrative methods [5]; the presented by V. Gyurova and V. Bojilova methods: SWOT analysis, pyramid, thunder, brain rating, avalanche (snow ball), circling, panel discussion, traffic lights, aquarium and mind-mapping, etc.

- It is well-known that the interactivity can be displayed on different level:
- as one of the sides of interpersonal communication
- through team organization of educational activity;
- within the frame of educational technologies;
- based on computer information technologies;
- based on the interaction of different subsystems in a given system, etc.

According to Kashlev (2004, pp.37-40) the main characteristics and instruments of the interactive interaction that determine each other and integrate into a unite compound are:

- **polilogue (literally-many voices) -the voice of every participant in the pedagogical interaction must be heard;**
- dialogue -the assumption that all the partners in the pedagogical interaction are equal
- **mental activity - organizing the mental activity of the participants in the pedagogical interaction;**
- creative thinking- the process of intended creation of new content by the subjects of the pedagogical interaction;
- **inter-subject relations- the participants in the pedagogical interaction are subjects of the pedagogical process, i.e. they are competent participants in this process**
- freedom of choice- the opportunity the participants to demonstrate their free will in the pedagogical interaction;
- **condition of success- the deliberate creation of external conditions that cooperate in the achievement of satisfaction, joy and positive emotions by the participants in the pedagogical process;**
- positivism, optimism of evaluation- the process of pedagogical interaction should lack negative or contradictory evaluation;
- reflection- self-analysis, self-evaluation of the participants in the pedagogical process;

### **Different kinds of interactive training methods**

The application of interactive methods of training guarantees the revealing of the pointed-out characteristics of the interactive cooperation. In my lectures I often put the students in conditions of interactive relation on the instructor-student or student-student level. **No matter what interactive method I have chosen I always use the methods of group studying** (Todorina, 1994, 2000, 2006), which includes the following

stages of realization:

1. Division into teams- done at voluntary principle, according to the preferences of the participants in the activity.
2. Selection of team leaders (work can be done without group leaders, if groups prefer to work this way).
3. The content of the task is discussed and it is made sure that everyone understands it.
4. "Roles" are assigned (if there is an internal separation of activity).
5. Various possible answers, based on exchange of information, experience and competence, are discussed. Every member of the team must express their opinion. The group decides one the members to formulate and put down their final decision. Every member of the group can make record of the final decision if they like.
6. Self-control and mutual control is exercised and mistakes are corrected.
7. The completion of the task and the work of the members of the team are evaluated and self-evaluated.
8. Everybody's performance in the completion of the given task is commented on and compared to the completion of other tasks. A member of the team/group is elected to present the activity and motivate the mutual decision. It is recommended that every member of a team should learn to report according to the requirements of a task. If it is necessary members are encouraged to practice reporting in front of their own team.
9. Each team reports the completion of the task in front of the whole group of students. Opinions are given on the reports. Additions and corrections can be made. It is recommended that the instructor gives his/her evaluation, criticizes or encourages the participants in the pedagogical interaction and summarizes the work of all teams.
10. Each of the presented structural stages of the team activity is carried out on the basis of interaction. Completion of tasks is released provided that the characteristics of the interactive relation stated above exist.

Working in a team has its specifics that are related to the choice of interactive methods. The peculiarities of some interactive methods and techniques of education (that I usually use in my work with students) are listed below. Examples are given how those can be used when teaching certain school subjects.

- The Jigsaw method (also called a file or hack-saw, created by E. Аронсон) Students who study the same topic as members of different teams meet to exchange expert information on the topic. Then students go back to their teams to report what they have learned to other members of the team. For more detailed information on the method see (Todorina, 2005, pp.197-198).
- The "Learning Together" method (by D. Consin - P. Consin) A group of students is divided into sub-groups of 3-5 people (sub-groups are determined by

level of training). Every subgroup is assigned a task that is a part of a bigger assignment (topic) and the whole group works on it. For **more detailed information** on the method see (Todorina, 2005, pp.198).

- SWOT- analysis (presented by Gyurova и Bojilova- [pp. 177-178] a separate person or a group examines the characteristics of a person or a problem- the strong and weak points, possibilities and obstacles.
- The Aquarium [pp. 190- 192]. A mutual decision is made based on consensus. A few students form the “aquarium” work on a given assignment as a group of experts while the rest of the group observe the process and ask questions.
- The Avalanche [pp. 184-185]. A task is assigned orally or in writing. When the students have to do the written variation a sheet of paper on which the problem is formulated goes around all the students so that they can write down their opinion. At the end of the activity the information on the sheet, collected by the means of the avalanche is read aloud.
- The **Panel Discussion [pp. 187-188] Work is done in subgroups, as each subgroup has a specific assignment which is part of a problem the whole group has to work out. The complex solution is made up by the separate solutions of the subgroups.**
- Alliteration of Names [as presented in [13], pp. 179 by S. S. Kashlev] A pedagogical interaction is released through alliteration of participants’s own names. The alliteration **reflects the personality of each participant. The teacher starts the activity, the participant that follows has to introduce the previous participant by using his/her alliterated name and then introduce him/herself. The method is recommended to be used in the first classes as means of introduction between teacher and students.**
- Weather Forecast [pp.178] A technological chart with co-ordinates are used. The ordinate measures “temperature” of emotional state, state of mind and the X- ordinate marks the participants in the pedagogical interaction. Each participant announces what his/her state of mind is and it is marked on the co-ordinates by the instructor. At the end all the marks are joined to represent the state of mind of the whole group.
- The Project method Students work on projects concerning major topics and they **have to perform a certain sequence of actions. The research, design, creative and practical activities must prevail. The final result must be well motivated and presented.**

While **teaching any pedagogical subject on the curriculum of pedagogical training**, interactive methods can be applied. Their use is preconditioned on educational content **level for each subject as it is normatively defined (by the parameters of quantity maintenance** of education in The South-West University Neofit Rilsky) that in the educational content the combination of traditional and untraditional methods the instructor is going to use in the educative process must be described.

On the level of books and teaching aid in the different subjects, various problems and tasks, cases and test, and explorative work are provided and they are all based on pedagogical interaction. I will present some tasks that are included in student's books so that students can complete during classes (lectures, seminars, practice) as well as at home.

For instance, in the teaching of Didactics and Pedagogy (part 2) the book *Didactics* by Todorina, Todorova, Gyrova and Antonova (2003) offers questions, tasks, tests and cases to discuss for every of its topics. Here are some of the tasks in the completion of which, interactive methods can be used:

1. Analyze the democratic tendencies that influence the object of Didactics as a science (through the method of SWOT- analysis).
2. Analyze didactically a student's book (a school subject or a class of students) of your own choice. Is it compiled in accordance with the main requirements? What are its strong and weak points? Can it be improved in your opinion? How?. -The Aquarium method.
3. Compare the child-oriented, subject-oriented and system oriented approach in the construction educative approach. What their characteristics match the contemporary paradigm of educative content?- the Panel Discussion Method

In teaching **Identification and Work with Gifted Students**, the book with the identical name can be used (Identification and Work with Gifted Students, (Todorina, 2001). It includes information for the instructor to help him with his work with gifted children. **It also offers a variety of tasks to be completed in the conditions of team organized educative work** through the use of different interactive methods. For example:

1. Having an index given, work out at least three different levels to reflect the stage of development of the studied characteristic. - the Aquarium method.
2. Outline the optimal strategy for work with gifted children. What stages of work will you include and why? What combinations of forms of activities will you apply?- the Project Method.
3. What can you achieve in A "Possibility Room"? – the Avalanche Method

In teaching the subject of Pedagogical Communication, the book *Pedagogical Communication Attainments* (Todorina, 2005) can be used. It represents a number of training practices which aim at the acquiring of communication techniques and improvement of pedagogical communication attainments. Chapter Three deals with interactive methods and techniques aiming at enhancing pedagogical communication. There are questions and tasks in every chapter, apt to be used in student-student pedagogical communication. Some of them are:

1. Analyze comparatively the approaches and their definitions of communication as social phenomenon. Which ones characterize the essence of communication?- the SWOT-analysis Method.

2. Name the content variations of the teacher-student communication? - the Brainstorming Method
3. Work on a project to improve communication attainments in students of grade. In order to finish the project, determine the technical models, the forms and the means you are going to use - the Project Method

In the teaching Class Management (MA in Education Management), the book after Todorina of the same name (2005) can be used. It offers topics and tasks for individual work [14] and many of them are appropriate to be used in interaction activities. For example:

1. Work as a team and determine the different activities that can be performed in a Student Interest Club. Use the hints already given in the book “Накъде след уроците” by Todorova, Todorina and Zhiryakova, (1995, pp. 93 ) – the Brainstorming Method
2. Work out a curriculum for the education of an individual student by using the system forming educational procedures of A. V. Hutorskojk. Work in pairs and take the roles of the teacher and the student - the Project Method
3. Analyze the possible strategies for the working out conflicts at school. Which strategy suggests cooperation, openness, tolerance and empathy? - the SWOT-analysis Method.

Many other examples of the use of interactive methods in students' class and course work in different subjects that are part of their university training can be pointed out. Doubtlessly, they are all appreciated by instructors and this one of the reasons why the Laboratory of Didactics, Psychology and Management of Higher education at the South-West University N. Rilsky has won and is now working on two projects that concerns the interactive methods of education (one within the university, and the other with the Ministry of Education). Beneficial results are expected and that will influence positively the quality of pedagogical staff training and its innovation activity in pedagogical practice.

## **2. Conclusion**

At the end following conclusions can be outlined. The application of interactive methods of education in higher schools can be viewed as an aspect of pedagogical innovation in the professional training of pedagogical staff.

- There is a **direct relation between innovation of professional training of future teachers and the quality of their pedagogical and managing activity in pedagogical practice.**
- The application of interactive methods in higher education is an important premise for **the modernization of future teachers' training in the terms of the important education and society tendencies of higher education in European educational space.**
- It is **recommended that the opportunities interactive methods of education offer,** are used to the greatest extent to enhance pedagogical communication,

communication attainments and the forming of competence to work in a team. Their effective application suggests the considering of their specifics, stages of manifestation, features and instruments of interactive activity.

- **Interactive methods of education are released in the conditions of team/groups form of education** which suggests acquiring of the technique of team work educational activity and detailed knowledge of its stages.
- **For optimal effect from interactive method application in the professional training of pedagogical staff, a preliminary preparation is needed as far as curriculum, student's books and teaching aids, educational process, tasks and requirements for interaction on student-student and teacher-student level are concerned.**
- **It is recommended that the tasks aiming at improving students' training in their class and course work activities are adequate to the specifics, purpose, intended aims and tasks, as well as to the results expected in a given subject.**
- **The illustrated interactive methods and educational techniques are appropriate to be applied in higher and secondary education.** Therefore they need to be conformed to the determined educational content and the age of the students so that they can make the best use of them.

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