

# The Use Of Case Technology In The Process Of Practical Training On The Discipline Of “Methodology Of Biology Teaching”

Kartashova Natalya Sergeevna\*, Shakhmurova Gulnara Abdullaevna\*\*, Halitova Roza Alimovna\*\*

\* Associate Professor, department of Biology and ecology, Tula State Pedagogical University named after L.N.Tolstoy

\*\* Head of the department of Zoology and anatomy of Tashkent State Pedagogical University named after Nizami

\*\* Teacher of the department of Biology and methodology of its teaching of Tashkent State Pedagogical University named after Nizami

DOI: 10.29322/IJSRP.10.05.2020.p10183

<http://dx.doi.org/10.29322/IJSRP.10.05.2020.p10183>

**Abstract-** The article reveals the possibilities of case - technology in teaching the discipline "Methods of teaching biology." Being an interactive method of teaching, it provides the development of theoretical positions in specific pedagogical situations, approximates the theoretical study of the material to the realities of the educational space, allows us to consider various options for the development of pedagogical situations.

**Index Terms-** case technology, method of specific situations, pedagogical situation

## I. INTRODUCTION

Case technologies (method cases), or the method of specific situations (from English “case” – case, situation) is a method of active problem-situational analysis, based on training by solving specific problems. The method of specific situations refers to non-game simulation active teaching methods. The immediate goal of the case technology is the joint efforts of a group of students to analyze the situation that arising in a particular educational process or its stage and developing a practical solution to complete the process. During the analysis of specific situations, the assessments of proposed algorithms are given and the best one is selected in the context of the posed problem. The case study method is most widely used in teaching economics and business sciences in the abroad [5].

Case technologies are specific educational situations that are developed specifically on the basis of definite material for the purpose of subsequent analysis in training classes. During the analysis of situations, students learn to act in a “team”, to conduct analysis and make professional decisions [7].

The case method (method of situational learning) differs from traditional teaching methods in the following peculiarities:

1. The method is intended to obtain knowledge on disciplines, the truth in which involves a variety of solutions. So, the process of implementing of specific aim and content of biological education can be carried out in different ways, differing in the selection of forms, methods, methodological ways and training equipment. Discussing the possible solutions, students enrich their own ideas about solution ways of problems.

2. The emphasis of training is not transferred to the possession of ready knowledge, but to its application in a specific

activity, to the co-creation of a student and teacher; hence the fundamental difference between the case method and traditional methods - a more democratic approach to learning, when students collaborate with each other and with the teacher in the process of discussing the problem.

3. The result of applying the method is not so much knowledge; it belongs to skills of professional activities.

4. The technology of the method is implemented according to certain rules: a model is developed for a specific situation that occurs in a real educational process, reflects the complex of knowledge and practical skills that students should get ones. In this case, the teacher acts as a facilitator, proposing questions, fixing answers, supporting the discussion, that in the role of director of the cooperation process.

5. The undoubted advantage of the method of situational analysis is not only the acquisition of knowledge and the formation of practical skills, but also the development of the students’ value system, the designation of professional positions, life attitudes, and a kind of professional attitude.

6. The method contributes the development of students’ independent thinking, ability to analyze, to generalize, listen, criticize and take into account an alternative point of view, to demonstrate reasonably their own position. Using this method, students can show and improve analytical and evaluative skills, learn how to work in a team, and find the most rational solution to the pedagogical task [6].

A case is an example, taken from a real professional process, which is a single information complex that allows you to understand the situation. An effective case (pedagogical situation) must satisfy the following requirements: to match the clearly stated goal of education; to relate to a specific stage of the educational process (section of the biology course); to assume several options in the selection of training technologies; to be relevant at the present stage of biological education; to illustrate typical situations; to develop analytical thinking; provoke discussion [3,4].

Case activates students, develops analytical and communicative abilities, leaving trainees face to face with real learning situations. Using the case study method has clear advantages over a simple presentation of the material, widely used in traditional higher education pedagogy. However, should not assume that cases can replace the traditional presentation of

theoretical material in lecture classes. Cases show how in practice pedagogical theories are applied and methodological requirements are realized. Cases differ from pedagogical tasks, used in seminars and workshops, since the goals of using pedagogical tasks and case studies are different in the education. Pedagogical tasks illustrate material that they give students the opportunity to study and apply individual theories, methods, and principles. Case study helps students acquire a wide range of diverse skills in learning situations, closed to the realities of the educational process [1, 2]. It is assumed that the process of implementing biological education in secondary schools of various types, it cannot occur using the uniquely recommended technologies. The essence of the case study method is that each student offers options, based on his knowledge, practical experience and intuition.

So, the study of the topic “Methodology for conducting excursions in biology” with third-year course students of the faculty of Natural sciences was carried out using case technology. Together with students, an interactive excursion in Tashkent State Zoo was conducted, the purpose of which was to consolidate knowledge about the methodological conditions for organizing excursions with students on biology in the zoo and developing skills on organization and conducting excursions with students in the framework of the generally accepted classification.

Previously, students were offered group tasks that are related to solving specific pedagogical situations:

Group 1: Development of methodological guidelines and conducting a zoological excursion in the zoo with students on the topic: “Class of Bird” (introductory tour).

Group 2: Development of methodological guidelines and conducting a zoological excursion in the zoo with students on the topic: “Order of Artiodactyls” (excursion on verifying the conducted material).

Group 3: Development of methodological guidelines and conducting a zoological excursion in the zoo with students on the topic: “Order of Perissodactyla” (general tour).

Group 4: Development of methodological guidelines and conducting a zoological excursion in the zoo with students on the topic: “Order of Primates” (excursion to learn the new material). Methodological guidelines were developed according to the following plan:

1. The theme of the tour;
2. The purpose of conducting excursions;
3. Tasks of the excursion (educational, developing, upbringing);
4. Type of excursion;
5. Methods and methodological ways of teaching;
6. Objects of study;

7. The course of the tour (7-1. Introduction by the teacher, 7-2. Tasks for students, 7-3. Report form);
8. Generalization and conclusions;
9. The final word of the teacher;
10. Using the results of excursions in subsequent classes in the biology course.

By interactive teaching method, the case method is gaining a positive attitude from students, as it provides the development of theoretical positions in specific pedagogical situations, brings the theoretical study of the material closer to the realities of the educational space, and allows considering various options for the development of pedagogical situations.

#### REFERENCES

- [1] Kraevsky V.V. Fundamentals of training. Didactics and methods: textbook. allowance for students. higher textbook. institutions / V.V. Kraevsky, A.V. Khutorskoy. - M.: Academy, 2008.-100 Pp.
- [2] Polat E.S. Modern pedagogical and information technologies in the education system [Text]: textbook for university students / E. S. Polat. - 2nd ed., Erased. - M.: Academy, 2008. - 368 Pp.
- [3] Ponomareva I.N. General methodology for teaching biology [Text]: textbook for students of pedagogical universities / I. N. Ponomareva. - M.: Academy, 2003. - 272 Pp.
- [4] Kozlova S. V. Application of case technology in biology classes // Theory and practice of education in the modern world: materials of the VI Intern. scientific conf. St. Petersburg, 2014. Pp. 301-302
- [5] Smolyaninova O.G. Information technology and the Case Study methodology in vocational training for students of a pedagogical university: Proceedings // All-Russian Scientific and Methodological Conference. “Education of the 21st century: innovative technologies, diagnostics and management for the purpose of informatization and humanization”, Krasnoyarsk, 2000. Pp.127-129.
- [6] Eremina M.Yu. The potential of the case method / M.Yu. Yeremina // School Technologies.-2004.-№ 6.-Pp.104-106.
- [7] Mikhailova E.A. Case and case-method: the process of writing a case / E.A. Mikhailov // School Technologies.-2005.- №.5.-Pp.106-115.

#### AUTHORS

**First Author** – Kartashova Natalya Sergeevna, associate Professor, department of Biology and ecology, Tula State Pedagogical University named after L.N.Tolstoy

**Second Author** – Shakhmurova Gulnara Abdullaeyvna, head of the department of Zoology and anatomy of Tashkent State Pedagogical University named after Nizami

**Third Author** – Halitova Roza Alimovna, teacher of the department of Biology and methodology of its teaching of Tashkent State Pedagogical University named after Nizami