

Circle as a Means of Increasing Cognitive Activity of Students

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Abstract- This paper reveals the mechanism of the group as a means of enhancing students' cognitive activity. Working with students in a circle, the teacher contributes to the activities of research work, improves the quality of training of qualified specialists.

Index Terms- circle, student, research work, cognitive activity, independent work.

I. INTRODUCTION

Multiple researches of pedagogies, psychologists, sociologists and expert-sociological study showed, that one of the most radical ways of educating the students, allowing them to effectively solve a wide range of educational tasks, are to involve them to creative activities, that organically connected with their professional education, that in scientific-research, design, project works.

Involvement to the system of upbringing of students of "resource" creativity, it will allows to affect and activate the creative potential as a fundamental quality of personality and through it comprehensively, to carry out the educational work by naturally and radically in a variety of ways, and substantially neutralizing some negative manifestations in consciousness and behavior of students and catalyzing the growth of positive emotions and activities [1,2].

Forms of the organization and conduct of research work of students, implemented outside of school time, include:

- Scientific circles of students,
- Problem groups
- Scientific and technical associations of students.

One of the directions of higher education is the achievement of such a level of development of students, when they are able to independently set a goal of activity, can plan their actions, correct their implementation, that to carry out independently the educational activities. The student must learn - this is often more important than arming them with specific subject knowledge. In this direction, one of the most important places belongs to the scientific circle of students.

Scientific circles of students are the main and most popular form of attracting students to scientific work outside of school time [3].

A research group of students named after "Teacher of Biology of the 21st Century" works at the department of "Biology and its teaching methodology" on the course of "Methodology of teaching biology". Members of the circle are students of 3-4 courses, if desired, and students of 1-2 courses of the Faculty of Natural Sciences can attend.

The purpose of the circle is to assist in the research work of students on improve the quality of training of qualified specialists.

The tasks of the circle are the formation of motivation for research work and assistance to students in mastering the scientific methods of knowledge, immersed and creative development of educational material, and education of creative attitude to their profession. The most diverse forms of work are used: reviewing and annotating of domestic and foreign literature, deep mastering the research methods, direct implementation of research, processing and analysis of research materials, presentation of research materials in the form of reports, abstracts and articles, participation in scientific competitions and exhibitions of scientifically work of students. Preparation for the conference is an effective manifestation of the communicative activities of teachers and students. Taking into account the wishes of the students, a work plan is drawn up with an indication of the specific topic, time of the meeting and the name of the responsible teacher. The choice of topic is determined by the importance of information. The responsible teacher organizes round tables, debates with the invitation of leading experts. Also videos are presented.

Independent work of students in a research circle is a means of enhancing a student's cognitive activity, through which he can carry out his own education, development and professional training in accordance with the set tasks.

An increasing of science role in social progress, its penetration into all spheres of people's life, the dependence of the quality of training of future specialist from research direction of the educational process made the actual problem on scientifically-research training of cadres, which makes the necessary of ensuring from students that a research approach to life and profession.

It is problematic to awaken the scientific interest among young people, orienting them to solving global problems. Maybe it is easy to work with the personality of a scientist, a scientist - a teacher, with whom he wants to communicate, and the culture of

communication of a teacher determines the culture of student knowledge [4, 5].

The conditions, promoting development of the research circle at the department of “*Biology and its teaching methodology*” are:

- *Focus on the formation of the personality of a professional researcher;*
- *Creative freedom in research activities;*
- *The possibility of intellectual communication with scientists;*
- *Popularization of research ideas in educational institutions of the region;*
- *Creation of a bank of students’ creative, research works;*
- *Study of the creative progress of graduates in professional life.*

In our opinion, students are encouraged to research activities:

- Interest in research activities, research work;
 - The desire to benefit themselves and others;
 - Unselfish interest to cognition;
 - The desire for self-realization, self-cognition of his potential;
 - Introduction to the creative work for the informed choice of the field of activity;
 - Self-education of personal qualities of a specialist-researcher.
- Research work is based on the following pedagogical positions:
- Common approaches to teaching and research activities;
 - unified pedagogical culture in the implementation of the problems of self-determination, self-development of students;
 - Purposeful formation and development of professionally significant research qualities of students;
 - Humanistic and personally oriented relationships in the process of carrying out creative, research work;
 - Systematic development of the creative potential of students: participation in the development of joint innovation projects, in scientific conferences, reviews and others;
 - Democracy, collegiality, openness and willingness to cooperate.

During the many years in plan of scientific research, students have been studying the methods of teaching biology. We conduct the meeting of the scientific circle at the department, and learn circle issues. In addition to this problem, the following topics are discussed at meetings of the scientific community of students:

- a) Evolution of parasitism;
- b) Psycho genetics;
- c) Problems of genome evolution;
- d) Drugs and AIDS;
- e) Genetics and alcoholism, etc.;
- f) Activation of cognitive activity in biology lessons;
- g) Use of interactive methods in biology lessons.

Members of the scientific circle of the department annually participate in the student conference, biology Olympiads by showing high results. For example, in 2017-2018 curriculum years, students participated to the Republican Biology Olympiad from circle and involved second place on biology.

Here, future specialists consolidate and improve the previously acquired knowledge and skills, they develop creative thinking, they study a creative approach to solving specific tasks,

they can make decisions independently, use the gained knowledge in practical work.

The joint work of future specialists in the scientific circle forms for them such important qualities, as the feeling of camaraderie, mutual aid, responsibility for the assigned work; develops mental abilities; brings discipline, dedication and clarity in work, accuracy and perseverance.

As a result, students will receive skills in writing essays, preparing reports for a scientific seminar.

At the second (main) stage, students perform specific studies under the guidance of teachers and research assistants, in the course of which they acquire valuable knowledge and skills, and assimilate research methods.

As a result, students will receive skills in preparing scientific abstracts, preparing course papers with elements of research, and carrying out educational research and laboratory work.

At the third (target) stage, students are entrusted with the implementation of small independent topics, which ends with the preparation of a report or an information at a circle meeting. This independent work can be continued in the form of a course paper or a qualified work.

The interrelation and mutually stimulating development of the educational and research processes is an objective regularity and at the same time this is the life-giving basis of higher education.

Scientific-research work of students is a necessary means of formation of the professional image of a specialist on any profile. The participation of students in scientific work is increasingly force for their involvement at creating material and spiritual values. Another facet of scientific creativity is the space of creating by them for the free expression of the individual, the formation of individual inclinations and interests.

In the course of the work of the scientific-research circle in the student community, creative values - the basis for the development of analytical skills on the transformation of the economic, political and social life of the Republic of Uzbekistan are appeared.

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