Some aspects of preparing of the students to research work

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Summary

In this article the features of students' training for research work are examined. In particular, there is highlighted the issue of the implementation of various forms of educational process. The traditional forms of studying are determined: theoretical (lectures, seminars, consultations) and practical (laboratory and practical lessons, course works, diploma thesis, internship). To the specially organized forms of training we include: student scientific society, academic workshops, scientific competitions, scientific and practical student conferences, competitions for the best student scientific work. Particular attention is paid to the independent work of students, as it forms the skills of independence and responsibility for the results of the research.

Keywords*: professional training of students, research work, forms of educational process, lecture, individual work.*

The problem of students' training to research work is multifaceted, especially in the institutions of higher education. Its importance in the process of studying was reflected in domestic literature (A. Antonov, Y. Gritsay, A. Dubasenyuk, I. Ivanova, S. Tutaryscheva, Chernilevsky D., etc) and in foreign scientific opinion (J. Ben -Devid, J. Elliott, L. Elton, B. moon, N. Neumann et al.). Most of the researchers noted the need to improve educational training programs of various professional fields based on educational and research needs of students, which are reflected primarily in the curriculum, forms and methods of work.

Let's consider in details the problem of applying the organizational forms of training of future professionals to scientific and research work. They are divided into traditional and specially arranged forms. The form of organization of educational process is the outward expression of a coherent activity of teacher and students that is carried out in the prescribed manner and a certain mode. Forms of education regulate students' activity in cognitive work and administration of it by the teacher [1, p. 468].

Among the traditional forms of studying there are distinguished two forms; theoretical and practical forms of studying. To the theoretical forms we include: lectures, seminars, consultations; to the practical forms we include: laboratories and workshops, course works and degree projects, internship and others. Research activity also provides students work outside the classroom and includes organized extracurricular classes (special organizational form of research work) that are

associated with the educational process, but with some specificity and own logic [2].

To the special organizational forms of research work can be included: student scientific society, scientific seminar, thematic competitions, scientific and practical student conferences, competition for the best student research work etc. Noted forms of research work assume independent choice of the theme of study; provide a link between academic disciplines and scientific work; provide creative features of training lessons; allow to take into account individual inclinations and scientific interests of students. But effective implementation of these activities require from teachers prior theoretical and practical preparation of traditional forms of education, which must meet the content and nature of the research tasks that must be solved.

The leading form of training is lecture, where educational process starts with the introduction of educational material of specific discipline and acquirement of different activities. In the process of the preparation of students to research work different types of lectures are used:

- introductory – familiarization of students with the basic provisions of a particular science, discipline or features of future activities;
- motivational - aimed at raising of students' motivation and interest in the future professional activity, in the circle of the studied problems;
- Preparatory - helps students to move to more complex thought processes;
- integrating - is a specific scientific field as a logical integrity and provides gradual movement towards further theoretical analysis of information;
- Constituent - orient students to the ways, methods and sources of getting information, to individual cognitive activity [3].

To generate motivation to research activities it is appropriate to apply introductory and motivational lectures, for the development of research knowledge and skills there is need for integrating the preoperational lectures, for preparation to individual performance of research work it is used integrating and constituent types of classes.

A special category of lectures are active forms of lectures. They include:

1. Problematic lecture - is the modeled contradiction of real life, professional reality or scientific field through their expression in the theoretical concepts. It promotes a better understanding of the nature of the profession, understanding relations between theory and practice, enhance the cognitive activity of students;
2. Lecture - provocation - is characterized by the presence in the proposed information so-called "planned errors" that students should reveal; at the same time students find out how to analyze and evaluate information quickly.
3. Lecture - Press conference - its content is determined by the range of students' issues and suggests the involvement of teachers and professionals. This type of lecture allows to activate students' attention and to use the potential of professionals of different spheres. [4].

Consolidation, knowledge control and practical training are carried out during seminars and workshops. Seminars are intended to deepening of students' knowledge and discussing the ways of their implementation in practice. Formation of professional abilities and skills takes place at workshops.

Seminars and workshops of problematic nature can be conducted in the following forms:

- conference - its feature is that the students' performances are distributed among participants in advance; they are individual scientific works; in the process of discussing the presentations, students receive more thorough and comprehensive understanding of the studied range of objects and phenomena than during the traditional presentation of program material;
- debate on specific issues or topics related to the particular professional problems – during this form of training value judgments are being formed, the own view on certain issues is being created, argumentativeness and evidence of thinking is being developed;
- defense of essays - the result of individual research work of students;

- workshops with the usage of active training methods, including "brainstorming", method of particular situations and others- students formulate a problem on their own and try to solve it;
- Business game - also provide the use of active methods of training. Business games may include research, training, and education; at the same time the motivational influence on students is being carried and a complete professional consciousness is being formed [5].

Beside problematic principle, as the defining principle of work at seminars and workshops there should be followed the principle of modeling of scientific research that involves the implementation of components of research activities into the educational process. The implementation of this principle implies: selection of modern, actual and scientific content of education; implementation of individual tasks that allow students to feel personal responsibility for its realization; clarifying the methodological essence of problems as the models of scientific research; exchange of information received by the students individually.

Separately, let's focus on the individual work of students, which can be carried out both in the classroom and in extracurricular time. During the formation of the readiness to research activities the individual work of students plays a leading role. The educational value of individual work is that it creates students' independence as a personal quality. Individual work is based on personal mental activities, that are implemented on their own initiative, without help (except for advice) and without external motivation [6]. It determines the consciousness of the studying, promotes the exploration of abilities of analysis, structuring of information, searching, classification, formulating and argumentation of their own conclusions.

Individual activity of students provides the work with informational sources and it is intended to perception, comprehension, consolidation and reproduction of knowledge or execution of creative and research tasks [7]. The forms of individual scientific and research work are: preparation of essays and reports, writing course

works, bachelor and master thesis, reports at conferences and at meetings of student scientific society, fulfillment of personal research tasks and so on.

The effectiveness of individual research activity of students is determined by the following conditions: the creative nature of the work; students' stimulation of the cognitive interests and needs for individual work by setting meaningful, relevant, scientific and professional issues; taking into account the individual interests and abilities of students; personification of tasks; organization of effective consultations from teachers and etc.

Thus, in the process of the preparation of future professionals to research work, the special importance is in the usage of various forms of education. During the implementation of traditional and specially organized forms of training students receive a thorough and comprehensive understanding of the studied phenomena and processes. At the same time the motivational impact on future professionals is carried out, their own opinion on certain issues is created; argumentativeness and evidence of thinking are developed.

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