

during which student has to complete the industrial part of given task (gathering of material, conducting of experiment, etc.).

This division in kinds of practical preparation is quite conditional and is done with the purpose of making clear methodic functions usual to separate kinds.

Student's practical activity allows to solve educational and real practical goals during the same time. That is why an amount of time given for one or another kind of practical work has to be considered as a period when that kind of practice is predominant but is not the only.

Basic directions of activity in improvement of practical preparation system for psychologists should be considered as:

- Rational spreading of kinds of practical preparation during educational period, relating to their volume;

- Creating a system of methodical support which could orient teachers on developing specific work plans of one or another kind of practical preparation and also which include educational and real practical goals (tasks) developed by teacher;

- Intensification of connection between practical preparation and future industrial activity of young specialists and also intensification of connection between theoretical educational course and practical activity of student who is learning within the industrial process;

- Deepening of practical preparation in development of organizational skills, getting an experience of working with people.

Successful activity in these directions is based on intensification of methodical work, strengthening of connection between education and industry, activation of teacher's role in practical preparation of students. Therefore we can see that kind of strategy of educational process organization which, as A. M. Matiushkin said, leads to such results when development of cognitive activity is being accomplished not in form of learning different ways of solving problems but in form of development of creative thinking in conditions of didactically organized dialogue and group thinking. The first object of changing is the level of self-regulation of whole educational activity – self-organization of educational aims is being realized, motives of learning also change their whole structure.

It's important to notice that all these new formations of individual and collective mind have not only narrow situational character but are spreading far over the borders of concrete educational situation. It's not accidentally that in practice of modern institutes of higher education productive creative forms of organization of collective educational process are so well spread. Industrial teams, student construction bureaus, building brigades, student scientific research laboratories and so forth make character of education and character of work activity more and more close to each other in aspects of their social structure and direction on achievement product of full cultural value.

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FORMATION OF STUDENTS' COGNITIVE SELF-DEPENDENCE IN "HIGHER EDUCATIONAL INSTITUTION – ENTERPRISE" INTEGRATED SYSTEM AS A PEDAGOGICAL ISSUE OF CURRENT IMPORTANCE

Grichin S.V., Torosyan V.F.
*Yurga Technological Institute (Branch) of Tomsk Polytechnic University
 Yurga, Russia*

Integrated systems of education employed in Russian higher education system are associations of educational institutions of higher education or their branches, departments, faculties, sub faculties and manufacturing firms or organizations which implement specific educational programs of higher education and conduct internal and internal-correspondence (evening) training in combination with students' labor activity aimed at formation of professional skills in specific specialties and training programs. Integrated systems of education ensure raising the level of the students' professional skills and theoretical knowledge in real working environment, promote mastering and application of creative approach in fulfilling their professional duties, which means they

accomplish important tasks of raising the quality of engineering education.

Student's cognitive self-dependence is an attribute of his or her intellectual faculties for learning ensuring in the future an active desire to acquire knowledge and apply it in action.

Analyzing the present research in the field, one can conclude that many aspects of forming students' cognitive self-dependence in higher education haven't been properly developed yet. In particular, distinctive features of forming students' cognitive self-dependence in the integrated system "higher educational institution – enterprise" haven't been displayed.

While keeping a certain amount of knowledge and skills to be acquired by the students, curricula of technological higher educational institutions do not focus enough attention to students' independent work. Such facts as the number of students capable of acquiring a given amount of knowledge at the expense of previous training, how much time is required to learn presented teaching material are not taken proper account of. It is also essential to consider that in the present economic conditions the opportunities of learning at Universities of big cities have become lower, and establishing branches of higher educational institutions in small towns, which is, on the one hand, a positive factor because the principle of accessibility of higher education for all is applied, on the other hand, brings to increasing the number of students from rural areas, whose level of cognitive self-dependence is rather low.

In training future specialists at technological higher educational institutions the issue of the day is the lack of the students' ability to use the potential of basic knowledge base for problem solving. Acquiring a certain amount of scientific data on the reproductive level still remains the aim of studying a field. In the meantime the purport of learning a discipline is to make a student in the first place grasp the material and in the second place make him or her familiar with the process of acquiring the learning material and methods of operating the received knowledge.

The problem of transition from acquiring a ready knowledge to acquiring knowledge useful for the students' future professional activity based on the students' cognitive self-dependence remains important.

The theory of developing teaching justly referred to by A.P.Aristova, P.I.Pidkasisty, N.A.Polovnikova as reproductive and creative theory of training cognitive self-dependence, is the theoretical basis of forming students' cognitive self-dependence. According to this theory, orientation of the teaching process toward potential abilities of the students and realization make them master new skills, acquire new knowledge, create new schemes of problem solving, new ways of activity. The main tasks of an educational specialist in this process is to organize educational activity aimed at formation of cognitive self-dependence, formation and development of students' faculties, their world outlook. It is important to establish connection between professional activities of an educational specialist and cognitive activities of a student aimed at attaining the set goals. Acquiring knowledge, formation of faculties and skills, development of creative capacities of students are interrelated processes, but their unity and development are achieved by means of purposeful efforts of an educational specialist. Consequently, cognitive activities can be both productive and creative. Formation of this faculty of students can take place both during conveying knowledge and students' independent research.

Students' self-dependence shows itself in different ways. There is still no unanimous understanding of the essence of students' cognitive self-dependence. For example, in researches by G.N.Kulagina, students' self-dependence is of intellectual nature, it determines only procedural form of their activity and doesn't reflect volitional and motivational factors. "Students' cognitive self-dependence is, first of all, independent thinking, displaying itself in the ability to understand a problem, a task, and in finding its solution, in the ability to make conclusions out of received knowledge, to pick out what is the most essential and crucial" [1].

Speaking about the formation of students' cognitive self-dependence within the system of "higher educational institution – enterprise" it is necessary to consider different approaches to way of practical solution of the problem. It is important to form students' cognitive self-dependence on the basis of the theories by B.G.Ananyev's, Yu.M.Kulutkin, E.I.Stepanova, G.S.Sukhobskaya and others, according to which people combining studies with industrial activity

(as in case of the integrated system “higher educational institution – enterprise”) extend their attitude to practical activity to their studies. It displays itself in the fact that students begin to consider the process of studying as a self-educational one, the one they involve themselves in with moral certainty. They become discerning and capable of self-control and self-regulation in this kind of activity. Knowledge is considered by them as a means necessary to solve different kinds of problems arising in their lives.

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ORGANIZATION AND CONTROL OF STUDENTS' INDEPENDENT WORK

Gubaidulina R.H., Logvinova N.A.,

Chahlov M.G.

Yurga Technological Institute (branch)

of Tomsk Polytechnic University

Yurga, Russia

One of the most important issues of the educational process is independent students' work. In the sphere of high school pedagogy the following law says: students' knowledge is the result of their own cognitive activity. That is why the main task for high school activity is to teach students to get knowledge.

The effective independent students' work depends on the way of its organization, necessary methodical material, and tutors' control which is important for first-year and second-year students because of the low knowledge level in science subjects and inability to work on their own. Our activity of teaching freshmen to work independently is the determining factor in their personality formation, their future ability understand scientific and technical texts, to solve scientific and engineering problems of different levels.

The tutors of mechanics and engineering department use different methods in organization independent students' work, for example: fulfillment of individual and calculation tasks, tests given in the beginning, throughout and in

the end of the academic year, computer tests, paper works, writing summaries on the basis of theoretical material, making researches and so on. The fund of testing materials is created for working though practical skills.

The question of students' independent work (SIW) control is also relevant. The SIW control should be regular, objective from the point of view of quality and “quantity” of the learnt material. Some types of control can considered to be rather effective.

The SIW will be effective in case if it is intended to get a particular aim and to be self-controlled. The method of students' knowledge self-control is used by us. For this purpose we use testing programme “Symbol” which was worked out in Tomsk Radio Electronics University. The “Symbol” allows to put into practice efficient knowledge control and self-control, gives the opportunity to get quality and quantity of learning. It is important to point out that this method can be used even among students not making satisfactory progress. The self-education process catches the attention of “indifferent” students. It is possible to use individual and group knowledge level tests of the current course because of the “simple” organization system. The use of instant self-control system allows to solve many problems in educational process: for example, overcoming of psychological barrier in learning, rise of self-esteem, development of students' independence, that means: a student develops his skills himself, studies the necessary material, controls, values, checks and corrects his cognitive activity. This method corresponds to the modern concept of education.

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