

TRAINING OF ENGINEERS-TEACHERS IS TO ORGANIZATION OF TECHNICAL CREATIVE WORK OF STUDENTS IN CONTEXT OF TECHNOLOGICAL APPROACH

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Abstract

The article represents generalization of results of theoretical researches on issue of organization of technical creative work of students of vocational educational establishments. Certain personality descriptions and terms of training of engineers-teachers for organization of technical creative work of students of vocational educational establishments are determined.

Key words: technical creative work, engineer-teacher, pedagogical technologies

ПОДГОТОВКА ИНЖЕНЕРОВ-ПЕДАГОГОВ К ОРГАНИЗАЦИИ ТЕХНИЧЕСКОГО ТВОРЧЕСТВА СТУДЕНТОВ В КОНТЕКСТЕ ТЕХНОЛОГИЧЕСКОГО ПОДХОДА

Аннотация

В статье представлено обобщение результатов теоретических исследований по вопросу организации творческой работы учащихся профессионально-технических учебных заведений. Определены личностные характеристики и условий подготовки инженеров-педагогов для организации технического творчества учащихся профессионально-технических учебных заведений.

Ключевые слова: техническое творчество, инженер-педагог, педагогические технологии

Article

The study of student practice in the sphere of organization of technical creative work of students, development of professional internals of engineers-teachers to organization of technical creative work of students required an address to modern conceptions of personality. For example, D. Klementyev worked out the classification of determinations of personality and distinguished its descriptional and normative determinations.

Analysing components of structures of personality, distinguished by A. Kovalyov, K. Platonov and M. Kahan, researcher marks the combined areas of psychological reality, offered by the authors of initial conceptions. In the generalized model of V. Lednev personality is defined as difficult social and psychological formation that consists of set of the interrelated and interpenetrate sub-structures [1].

An orientation of personality of student on the sphere of organization of technical creative work of students is a backbone basis for the variety of educational disciplines. A. Levin marked that it is difficult or impossible to train a good teacher from a student who does not have turn for pedagogical profession and other necessary personal characteristics for the teacher.

Development of orientation in the process of studies of student in higher educational establishment assists making of complex of personal, professionally-pedagogical internals, development of creative individuality of future specialist, contributes to success of his further professional activity. This orientation is studied in two aspects: personal motivational-valued, that is shown up in relation toward the values of creative professionally-pedagogical activity,

and to the operation, that provides forming of professional readiness, professional competence in organization and management of technical work

In the process of research it was ascertained, that effective training of future engineers-teachers for organizing technical creative work of students of vocational educational establishments can be carried out within the limits of technological approach in education. Thus, there is a necessity to study the basic pedagogical technologies of training of students for organizing the technical creative work of students of vocational educational establishments.

Pedagogical technology is a totality of psychological and pedagogical purposes, that determine the special set and arrangement of forms, methods, means, ways of teaching, pedagogical facilities; it envisages the description of process of achievement of the planned results of teaching, and is a pithy technique of realization of educational process [3].

In the context of our research the essence of technology is the detection and development of different types of creative capabilities of students on the basis of cognitive causes of teaching, tendency to the self-expression and self-affirmation.

There are such technological stages:

Searching (studying a topic by the student; development of cognitive interest, motivation; specification of terms and criteria of preparedness of students to the certain type of activity; general revision of present and search of necessary educational literature, illustrative material, technical equipment of education and others).

Qualificatory (organizational moments are solved by students during the break or directly during the classes; students get opportunity to choose the most interesting creative task, team up into the creative groups (or association) according to the interests, study the task.

Analytical (summing up the results; self-examination of creative activity; evaluation of the results).

We state that pedagogical technologies only give students the basis of orientation in development of technical creative work.

The problem is that it is necessary to use technological approach in education which all pedagogical technologies are based on, and training of students is put into practice within the limits of traditional approach. Thus there was contradiction between the requirements of present time to the improvement of education and present out-of-date approaches.

Aim of the article – to define particular qualities of training of engineers-teachers for organization of technical creative work of students of vocational educational establishments.

The problem of maintenance and development of organizational function of leader of technical creative work of students in the content of personality and professional activity of engineers-teachers must be studied from positions of social and pedagogical, general psychological and psychological and pedagogical approaches.

The most general index of the attained level of development of organizational function can serve an implementation of personality of specialist on fulfillment of organizational work in the sphere of technical creative work of students. The orientation of personality of future engineer-teacher in its complex understanding as combination of interest and propensity to engaging in technical creative work with interest and inclination to organizational work in this sphere, taking it into account and development in the process of teaching of students in higher educational establishment is the main point of our research, the basis of development of professional personality of engineers-teachers to organization of creative activity

One of the major ways of optimization of process of teaching is management of motivation, based on the results of scientific analysis of its features and appropriateness.

Possessing the motivational bases of process of teaching is equal to knowledge of motive force of this process. It is impossible to attain a desirable result, if efforts of the teacher are not concerted with motivational basis of concrete process of teaching.

Motivation is interpreted by many researchers (V. Merlin , S. Rubinstein, Y. Sharov and other) as ability, component of characteristic of personality. It is the core of personality that determines the integral type of person and its activity.

General functions are communication (between members in groups), teaching and training. The special attention must be paid on the special function of organizer : integration – the forming of interpersonality group unity of the organized association of students on the basis of interest to technique, technical creative work, aspiration to do something "real" with own hands . If general internalss of personality inherent to every teacher are studied well enough in scientific literature, the development of specific internalss of engineer-teacher are not studied sufficiently. We will introduce a limit amount of key (specific) internalss. They represent the special displays of function of organizer of technical creative work of students in the program of research. For spesifying of key internalss to personality of capable organizer we used the results of analysis of basic descriptions of leaders of groups. The research of personal internalss of the teacher-organizer (in our case of engineer-teacher), in pedagogics and psychology is carried out on the basis of their displays – activity.

Thus, A. Bodaliyov with collaborators studies the display of personal internalss in activity, commonication, cognition; S. Kondratyeva – in a pedagogical commonication, L. Bozhovvych studies it from the social positions of personality.

L. Akhtariyeva, G. Zharemba, V. Kozhiiev, S. Kondartieva, I. Rappoport, G. Turner and other, studying the demonstration of internalss of personality of teachers-masters and teachers of low qualification, specified its predominant personality qualities. In this way, for teachers of high and middle level of activity the high level of development of organizational internalss, exactingness to itself, confidence, even temper, affability, tactfulness, sincerity, are inherent. For teachers who have not become masters anxiety, uncertainty, neuroticism, lack of restraint and other are typical, it results in disorganization of activity, instability to different kinds of emotional factors.

Analyzing works of home researchers, we pay attention to presence of interpenetration of personality internalss of teacher and organizer. Thus, for example, S. Husev distinguishes the following aspects of teacher's work: teacher-organizer who picks up means, that distribute work between children, to awake their interest, who registers his achievements and errors; teacher of labor training possessing "skills of expression", methodist, public worker, cultural personality.

Successful organizational work depends on the following psychology and pedagogical terms: knowing people, whom organizer works with; knowledge of laws of group development; development of general and special internalss of personality of organizer; knowledge of features of organizational work; knowledge of business which isorganized; the ability to organize in practical way.

Thus, the analysis of psychology and pedagogical literature and study of front-rank pedagogical experience of organization of technical creative work of students allowed to us to educe the psychology and pedagogical terms of effective activity of organizer of technical creative work of students, to set the ways of perfection of training students for further professional activity.

Questioning of experienced teachers-organizers of school technical associations confirmed our supposition that within the framework of curriculum to the students do not have enough time for successful realization of professional function of organizer of technical

group. Practice showed that, even having good skills of work with material and instruments, learning maintenance of basic directions of technical activity of school groups, many students were not able to organize, to involve pupils and to develop their creative potential. Studying this situation on the first stage of our research, we detected the following principal reasons of its origin:

The absence of interest and turn to engaging in technical work prevented the internal personal recognition of aims of creative activity, motivational-valued attitude toward it and, as a result, formal, passive approach to studies.

Conclusion. The ingenious activity of making of the simplest technical objects serves as the basis of development of external, episodic interest, as for firm interest – studying of creative content of technical activity serve methods of inventor search. Educational process must be conducted as integrative course that embraces all basic aspects of organization of technical work of students. The criterion of selection of students is the presence of interest to technical work. Technical creative work of students as element of the system of education, training and development of students is having difficult times and it is in breaking point. The sharpest problems are problems with teaching stuff and absence of the proper material base. Teacher at "conveyer" training as a teacher of technology actually is prepared to fulfill the function of organizer of technical creative work of students. It is necessary to work out the special system of measures and as a module to insert it into the structure of curriculum of present faculty of technology and enterprise of pedagogical educational establishment. It is necessary to develop and introduce new pedagogical technologies and ground the principles of rapid restructuration of curricula, to introduce it as blocks-modules of the new micro educational systems. Prospect of further research is in the ground of methodology of developing creative skills of students of vocational educational establishments.

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