

formation of the projective culture; the creation of the humanitarian sphere of education; the integration of the content of pedagogical education; providing of students with a subjective position in educational process; development of the creativeness of students; development of reflexive positions of the subjects of educational process; orientation to the formation of innovative environment, involving the students in different types of pedagogically-psychological practical work.

*References:*

1. Popper K. Misery of historicism / Popper K. // Questions of Philosophy – 1992. – N9 – p.22-48.
2. Genisaretsky O.I. Topical problems of project culture investigation / Genisaretsky O.I. // Technical esthetics. – 1989. – N5. – p.22-27.
3. Zair-Bek Ye.S. Theoretical projecting in educational system // Zair-Bek Ye.S. – SPb., 1994. – 324 p.
4. Kryukova Ye.A. Introduction into social-pedagogical projecting. // Kryukova Ye.A. - Volgograd, 1988. – 106 p.

The work was submitted to III international scientific conference «Actual problems of science and education», Cuba, March, 19-29, 2008, came to the editorial office 25.01.2008.

#### ISSUES OF ADAPTIVE EDUCATIONAL SYSTEM MANAGEMENT

Karavaeva I.A.

*Izhevsk State Technical University*

*Izhevsk, Russia*

In traditional knowledge-oriented approach educational system management begins with setting aims which are important for society and with control of their achievement. Educational aim having been stated as a socialization of younger generation concerning educational process becomes a part of external aims category. In turn it needs organization of external educational management. Such external management begins with structuring the contents of education. That means creation of external content standards. Otherwise, the structure of the content, or content standards, in this case become specific external social aim of education. Inasmuch as aims of education are always external in respect to educational process, educational system management comes to content standards manipulation, or to strict regulation of educational process at any level. Such conditions don't allow taking peculiarities and interests of all the participants in educational process – the teacher and the students – into consideration. Therefore, achievement of the aim is of scholastic nature and educational system management is ineffective. Nowadays, educational aim – socialization – is achieved by means of humanization of education. In its turn humanization is often interpreted as child's adaptation to social environment due to the process of education. In pedagogics as a whole

and in education in particular adaptation is interpreted much like in biology, sociology, psychology as external environment adaptation. In general adaptation is a process of adjusting the organism and its functioning to the changed living conditions. The necessary conditions of adaptation are inner resources of the person, in this case biological, his social environment, and their interaction. There are two possibilities of this interaction. First, changes in social environment lead to inner changes. Second, inner changes need some changes in social environment. Implementation of the first variant becomes possible due to *person's adaptability* which is inborn and acquired ability of the person to adapt oneself to diversity of life in any conditions. In terms of pedagogics *adaptation of the student* to social environment is interpreted as socialization, or aim of education, and, as it was already mentioned, is one of the external characteristics of educational process. The results of education, however, are the internal characteristics of the person being taught. So the gap appears, that makes the development of adaptability in educational process impossible. One of the attempts to get rid of such a gap is creation of new concept adaptive educational environment. Under the concept *adaptive educational environment* [1] social and pedagogical system adapting to the conditions of the changing external environment which, on the one hand, aims at the best adaptation to the individual peculiarities of the students, on the other hand, tries to be flexible when meeting the society requirements, is meant.

Adaptive educational environment takes the position in-between the external aims and the internal features of the student, for example, the results of teaching, and has the ability to adapt both sides of educational process. It ensures their interaction due to creation of the system of pedagogical process in the context of some pedagogical theory. The interaction in the context of some pedagogical theory is, in its turn, fulfilled in the course of appropriate educational process, which *is aimed at* achievement of educational purposes by the students and is fulfilled due to its *structure*. Therefore, creation of adaptive educational environment is to guarantee achievement of the educational process aims. That allows us to speak about efficiency of education – a measure of coincidence of the results achieved in reality with educational aims. However, it should be pointed out that it is not always possible to compare the results and the aims because they are on either side of adaptive educational environment – of educational process. Such definition of efficiency of education again causes the problem connected with the elimination of the mentioned gap. Yury Babancky judges the efficiency of the educational process [2] chiefly according to the educational success of the students and also according to their breeding and maturity that is according to their internal characteristics. To his mind, efficiency can be attained only by optimal means those which are more

favorable in present conditions, in other words, in optimal educational process. Optimal educational process is such educational process [3] that is the best for present conditions, real abilities of the student and the teacher according to certain criteria. *The criteria of efficiency* according to Y. Babansky [4] are achievement of that level of progress in studies, breeding and maturity by every student he is really able to achieve during given period of time that shouldn't be under satisfactory level according to existing system of grades; spending established amount of time for class- and homework by teachers and students; and a minimum of necessary efforts on the part of the educational process participants. The first one defines the aims of education, which are connected with knowledge standards according to the scale of grades, that, for sure, refers to the external conditions and is always determined by external social order – the standard. The second criterion of educational process efficiency also refers to the norms of the standard that is time criterion of the standard. The third criterion refers to the inner characteristics which are organized and controlled from the outside, and, therefore, as it is in the first case, efficiency is presented by means of external environment organization and management. There upon educational process structure and course being under control of the external characteristics points out its quality. The extent to which educational process is well-organized and controlled is characterized by such category as intensification of education. *Intensification of education* as a process according to Y. Babansky is an increase in productiveness of educational work of the student and the teacher in every unit of time [5]. In order to control the external conditions the author defines the following *elements of intensification of education*: rise in purposefulness of education; strengthening of learning motivation; making the contents of education more informative; using the active methods and forms of training; increasing the speed of fulfilling the learning activities; development of learning skills; using computers and other new technical devices. All the elements stated above can be defined as external features of educational process. Consequently, we can say that the criteria of educational process efficiency describe the adaptive educational environment as interaction of external and internal elements of pedagogical process according to the first possibility that is changes in social environment lead to inner changes, and educational process intensification category is characteristic of controlling the educational process as adaptive environment. It should be taken into account, however, that educational process organization and control don't allow to get rid of the gap between internal characteristics of the student and external educational environment conditions because the aims of education are external and internal characteristics are uncertain and, therefore, are out of control. Intensification of education in this case is interpreted as average educational work productiveness in-

crease that makes educational process control in order to achieve the aim the purpose of averaged standardized technologically effective educational process. External structure of technological effectiveness of educational process course indirectly becomes the aim of education, and the quality of education is judged by the standardized educational process efficiency as a measure of educational process control for the achievement of external averaged, that is to say uncertain, aims. In this way, the first adaptation possibility implementation by means of control the adaptive educational environment is not enough to achieve the internal aims.

According to the second adaptation possibility inner changes need modification of social environment. To our mind, in terms of pedagogics educational process can become more effective only when there are internal, that is to say personal, aims which will require the changes in the whole of educational process. And intensification of educational process which will lead to the increase in efficiency in the results of education of every student will be interpreted from the point of view of individualization of educational process. The increase of individual educational aims becomes the first element of *individual intensification of education*. For stating and achieving the individual educational aims one should create inner system that is implemented in individual purposeful pedagogical process which should certainly include *inner personal educational aim, individual contents of education, theory-based method of teaching*, that should suit the aim, and *method of control* the results of education. Inasmuch as inner aim of education always depends on a person, pedagogical process construction becomes the object of education, and internal individual pedagogical system becomes its subject. The first stage of constructing the internal individual pedagogical system is defining the internal individual aim of education, which will allow to make the whole process of education individual and also to define other aim-depending characteristics of theoretical system. Defining the aim of education begins with stating the task, which should be based on the inner features of the student. Taking the initial characteristics into account, we are able to create individual contents of education. Thus, in the course of implementation the first stage of pedagogical system construction the aim becomes the theoretical construct of contents of education. The aim of education is still the main element of pedagogical system, is still inside its bounds that is why it is still internal for the system. It can be stated that while defining the aim the unveiling (constructing) of the latent pedagogical object – the person taught – takes place and its replacement for certain construct of the contents which being the personal aim of education and having some material realization also serves as an individual criterion for the level of education. The process of constructing contents of education adaptive to the inner educational aim or constructing

the adaptive contents becomes the second stage of pedagogical system becomes. The process of constructing contents of education adaptive to the aim, or the process of content adaptation, must have two functions: the function of control and the function of subject contents. The function of control the constructing of the adaptive contents means constructing the individual structure of contents of education, which suits the internal aim. In other words, taking inner aims of education as individual construct of education the teacher defines some plan, the path of education, which will allow fulfilling the personal aims to their full and according to which the further educational process of the student will be constructed. Obviously, the individualization of educational aim and its fulfillment due to creation of individual educational path make the educational process individual. The subject function of constructing contents of education adaptive to the aim of education makes us think of the problems of didactics and lies in constructing certain subject contents unveiling educational aims at certain subject level. In other words, concretization takes place that is revealing the aim by means of defining and constructing the subject contents. The process of implementation of the function of control and subject function of constructing the individual (adaptive) contents results in constructing certain internal for the system contents of education unveiling the internal aim of education (adaptive to the aim) or constructing *adaptive educational contents*. Under adaptive educational contents we understand individual educational path definite in subject terms at the level of didactics and implementing internal individual aim of education. Everything stated above makes us come to conclusion that we should speak of the course of education not in the direction of the external unsteady and unstable social norms but in the direction of the internal steady and fairly permanent norms. Under the concept of the internal norms we should understand the contents of education itself. In this case the aim of education is not a process but education itself that is its internal and certain contents. The concept of adaptability in education is defined due to acquirement of some variant of educational content, and the content itself is a certain invariant construct. Individual acquirement of the content invariant lets us speak about the acquirement of the content to the full, which includes different possibilities, which allow achieving internal content adaptation. In this case, first, the aims of education don't lose their meaning; second, we can control the results of education because there is certain invariant construct of educational contents; third, adaptation is regarded as a category defined individually, not as an averaged category. However, there are difficulties of implementation adaptive educational process in practice. Pedagogical reflexion by means of which the teacher achieves adaptation of educational contents to the abilities and inclinations of the student plays an important part in the process of educational

content construction. Pedagogical reflexion of the teacher is the basic tool for solving the pedagogical task to adapt the contents of education to the peculiarities of the student following the requirements of the standard. At the same time pedagogical task consists of two main elements: on the one hand, the contents of education, on the other hand, personal abilities of the student. Pedagogical reflexion is a professional ability of the teacher to take both elements into account in the course of educational process. Thereupon we should remark that the main problem of adaptive educational system management is lack of competent teachers who had special training in the field of theory of constructing pedagogical constructs, especially building the constructs with adaptive contents of education. It is obvious that students are not able to solve the problem of choice of their own education contents on their own because of their incompetence. That is why the provision of educational institutions with trained specialists in the field of pedagogics able to construct contents for individual education. Thus, the implementation of the idea of constructing the individual educational process made us solve the problem of adaptation in education, which we think is realized by means of management in the field of professional constructing of adaptive educational contents, which is achieved due to reflexive teaching.

#### References:

1. Adaptive management of pedagogical systems: Manual for higher educational institution students / Tretyakov P.I., Mitin S.N., Boyarintseva N.N.; under the redaction of Tretyakov P.I. M.: Publishing center "Academy", 2003, p. 368.
2. Babansky Yu.K. Learning process optimization (General didactic aspect). M.: Pedagogy, 1977, p.254.
3. Babansky Yu.K. Optimization of educational process (Tutorial principles). M.: Prosveshcheniye (Enlightenment), 1982, p. 192.
4. Babansky Yu.K., Potashnik M.M. Pedagogical process optimization (In questions and answers). Kiev: Rad. sch., 1984. – p. 287.
5. Babansky Yu.K. Learning process intensification. M.: Znaniye (Knowledge), 1987. – p. 78.

The work is submitted to III Scientific Conference "The Problems of International Integration of Educational Standards", Czechia (Prague) – Luxembourg – France (Paris), April, 20-27, 2008. Came to the Editor's Office on 29.12.2007.

**FIRST AUTHORS' SCIENTIFIC SCHOOL OF  
TEACHERS IN POSTGRADUATE EDUCATION**

Lukyanova M.I.

*Teachers' Development Institute  
Ulyanovsk, Russia*

The quickly changing social reality has called into being new objectives, content, methods and technologies of education. It resulted in other requirements for the educator. Nowadays the educator has to perform functions not only of a teacher, instructor, advisor, tutor, but also an *investigator*, who discovers new principles and modes of training and upbringing, combines traditions with innovations, strict algorithms and rules with creative research, uses new information and communication technologies in his activity.

Only he, who will acquire the scientific cognition methodology, will be ready for scientific-pedagogical research and will be able to use the obtained result in his practical activity, can achieve this work and conform to modern requirements. In present-day education there appeared a demand for purposeful research activity of the pedagogue.

The necessity of investigative position formation in the teacher able to realize his research activity orients the system of continuous professional education to new forms of scientific-methods work with teachers.

In January 2007, under our scientific supervision, an authors' scientific school of pedagogues "ACME", the objective of which is to assist the professional-personal enhancement of teachers and their mastering of scientific cognition methodology was opened. The school united the pedagogues engaged in initiative scientific research. The integration of educational processes with innovative and research work has become an activity norm of the pedagogic workers having joined the scientific school and developing new educational areas and new technologies.

The authors' scientific school opening within the advanced training system is conditioned by the following purposes:

- the promotion of scientific-pedagogical and scientific-research activity of various educational institutions pedagogues;
- the performance of research activities on professional, pedagogical and managerial activity actual problems;
- the introduction of scientific findings and developments into pedagogical practice;

In this case we use the approach to the consideration of the scientific school as an objectively conditioned organization form of the scientific activity of a group of pedagogues-investigators. The scientific school of pedagogues "ACME" – is a study personnel, within the framework of which the scientific communication culture becoming takes place, the norms of professional and social behavior of an academic community are accustomed.

The main function of the school in science (as any school) – is an educational one and oriented to the reproduction of scientific personnel through teaching pedagogues scientific work foundations, expansion of their scientific outlook. Together with that, performing the educational function, the authors' scientific school of pedagogues "ACME" is oriented to a joint research activity on the leader's program and under his supervision.

In the scientific school of pedagogues "ACME" the work is performed on the *unitary scientific and research program*. The theme – is "**Acmeology of Education**". The research control function is performed by the research manager.

Why is the scientific school of pedagogues called "ACME", and the research program is denoted as "Acmeology of Education"?

The pendency and complexity of many problems of theory and practice of education at the turn of XXI century under new conditions of socio-economical and informative-culturological development of the society are known to have become the appearance cause of a variety of integrative sciences about education. It is natural, because education as a social sphere of human life activity mustn't be considered as a pedagogical reality only and lead educational problems only to pedagogical aspects. The system of education has various associations with science and society and the education itself is the sphere of scientific knowledge *system* functioning. Every educational problem represents a complex interdisciplinary problem demanding the integration of knowledge for its analysis and solving. Educational problems are becoming the core of new scientific disciplines; the "dual subordination" academic fields design principles.

One of such academic fields the acmeology of education has become. It is a psycho-pedagogical science, which integrates the knowledge about human development in educational milieu, about tops reaching in human life activity and development in conditions of educational activities in various types and kinds of educational systems. It is the acmeological approach that puts forward an integral human development as the purpose of education and considers individuality as the top value.

For the purpose of objective and thorough investigation and development of education it is necessary to use the integrated methodology, within the structure of which the acmeological approach occupies a worthy place as a new methodology of education. The acmeological approach forms a high achievement motivation, need for success, high results, human inner life revival, his intellectual development and spiritual maturity. In connection with this, the social role of the pedagogue's post-graduate education system, its strategic ideological function grew significantly. The teacher's consciousness reorganization, the disclosure of his individuality formation and