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**MANAGEMENT PROCESS  
OF SENIOR PUPILS' PROFESSIONAL ORIENTATION:  
GENERAL PRINCIPLES OF SYSTEM MODELING**

*SUMMARY. Methodology and the general principles of system modeling of the management process of professional orientation in the frame of a single system chain: «personality — social institutions — functioning systems of socialization — professional choice — labor market» are considered. The author's concept of the development of an integrated system model for the management of the professional orientation process of an individual in modern conditions is presented in this article.*

*KEY WORDS. Methodology of system modeling of the management process, professional orientation of senior pupils, program target-planning, concept of forecast integrated model of management, sociological survey of the efficiency of the technologies of professional orientation of pupils.*

A research into the problem of optimization of the professional orientation process of schoolchildren in middle school, as the starting point of the social institution of training of the economically active population, is relevant for the present stage of economic market modernization. In this context the methodology and the general principles of system modeling of professional orientation management and socialization of the person are based on program-target planning of effective administrative activity, formalization of elements of the system of social efficiency and the mechanism of approbation of the forecast model in practical activities [1]. The development of a new technological paradigm of network communications is urgent for the system modeling of professional orientation management and the socialization of an individual. It is necessary to notice that the initial keystone in control system modeling is the flexible network matrix structure which is built on the principles of the program-target approach. Within the frames of the author's concept the managing process methodology is based on a uniform system axis: «person — social institutions — functioning systems of socialization and professional orientation — labor market». In the system modeling of the managing process the concept «model» is treated by us as a material or mentally represented object which in the course of study replaces the original object with characteristic typical lines. Modeling assumes a process of construction, experiment and approbation of the forecast model in practice [2]. According to the specific classification of systems, the forecast model of managing social processes corresponds to the material model as a real-life social institution and is an ideal-typical model, i.e. forecast or conceptual [3]. The modeling process includes inspection of the object and formulation of the technical project for development

of the model, a conceptual statement of the problem, evaluation and preliminary qualitative analysis, selection and development of algorithms of its resolution, system research of the model and approbation of results. The analysis of works on this subject shows that the basic attention of modern researchers is directed towards the development of a forecast competence model for experts, mainly for graduates of higher educational institutions [4]. In our opinion, the problem needs to be addressed within the frames of the system approach that will allow to create an effective integrated model of training in basic common cultural, common professional and profile-specialized competencies at the level of general, average professional, average technical and higher vocational education. In the realization of programs on the professional orientation of schoolchildren it is important to consider modern lines of state policy focused on the development of a productive economy in the country that in turn implies the problem of preparing qualified personnel not only in the top echelon, but also at an average technical level. Qualified experts of work specialities are not less demanded in the modern labor market. Therefore, essential updating is urgent of the practices, which have developed in recent years, of high schools in the market of educational services, as a result of which a maximal reduction of the segment of average professional and average technical education has occurred. As world experience shows, overproduction of personnel of the top skills segment leads to such social and economic problems as structural unemployment, reduction of the segment of the productive economy, reduction of volumes of output of cumulative national product, etc. Therefore, it is necessary to include target programs of professional orientation in the school system in the sphere of average professional, average technical and higher education with equal definition of the prestige of future trades and their demand on the labor market, and also for schools to carry out profile preparation for the choice, with the delivery of state certificates. Such practice, in our opinion, will promote social mobility and the further professional training of the graduate. The measures proposed will also promote successful integration, on the level of school professional orientation, of common cultural and common professional competencies in the system of further professional education. Modern processes of integration into world economy demand not only basic professional competencies from the modern expert, but also skills of social adaptation and mobility in a system of market relations. Thus the necessity to develop the educational innovative paradigm, as much as possible focused on the problem of socio-psychological and world outlook, is obvious. It is possible to justify this position by the statement that active institutional transformation, new organizational and legal forms in the economy of small and medium business, and also the integration of world grade processes, demand the quality psychological support of professional training focused on qualitatively new consciousness, economic, design- and scientific thinking as the basic components of the professional culture of the modern expert [5]. This problem has a close interrelation with questions of self-development and self-education as a process of «self-training» is directly connected with the phenomenon of personal growth. From the point of view of the activity approach, optimum development of the person occurs in the course of successful mastery of professional work, significant for the subject. In the above-stated context, the design of the innovative model of preparation of experts of the average and top echelons should include, along with an educational program, mechanisms initiating people's self-development. Thus, considering the age features of the person in training at school, in the list of competencies of the future expert

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priority positions should be occupied by the following base competencies: general scientific (ability for application in practice and educational activity in socio-humanitarian, economic, natural and mathematical sciences; readiness to form an empirical database independently; readiness for the independent analysis of a database); common cultural and socio-personal competencies (ability to train and implement intellectual, cultural, moral, physical and professional self-development and self-improvement; readiness to use ethics and rules of law and tolerance in relation to people, society, environment, to respect civil rights and freedom; capacity for social adaptation) [6]. Following the principles of system modeling designated above, the base competence of the school graduate should have further development in the sphere of average technical or higher professional education in economic and technical specializations. At this level, within the frames of international qualifying standards, the range of general scientific competencies considerably extends (readiness for self-improvement and professional advancement; readiness to carry out system analysis and the establishment of relationships of cause and effect, of phenomena and events in the scientific, social and economic spheres); socio-personal competencies extended to critical reconsideration of social experience, further intellectual, personal, moral and professional self-development. A qualitatively new layer is formed by the group of "instrumental competencies", defining the ability of the graduate as much as possible to use the potential of computers in professional work; to master foreign languages, to use organizational-administrative skills; the ability to use basic knowledge in the field of computer science for the creation and application of software to solve professional problems; ability to use methods of mathematical modeling and mathematical statistics in practical activities. Common professional competencies are formed of basic knowledge in the field of economy, mathematics and natural sciences. Thus, the realization of principles of system modeling of processes of training in professional competencies allows to build profile continuity between two institutions of the preparation of experts — the school providing general professional orientation, training in basic skills and professional competencies, and higher educational institutions (college, university) where already available basic potential undergoes further qualitative development. For the purpose of definition of the results of professional orientation of schoolchildren of senior grades, the author conducted a sociological research among the entrants enrolled on a course at Rostov-on-Don city university [7]. The total number of respondents was 300 students, graduates of schools No. 1, 3, 16, 19, 24, 46, 52, 54, 57, 65, 67, 75, 76, 81, 86, 91, 101, 107, 109. Questioning was carried out in September 2010 at the Rostov Institute of Technology, Service and Tourism. Out of the total number of respondents (the former graduates of schools) answers concerning the sources of the information which affected their professional choice were distributed as follows: family — 10%; school — 5%; friends — 30%, advertising companies of mass-media — 5%, university actions — 7%, personal research into the necessary information — 40%, results of professional testing — 2%, other sources of information — 1%. As these data show, personal research was the basic source of information for 40 % of respondents. This is caused by the availability and popularity in the youth environment of the Internet. 30% of respondents received information on the prestige of their future profession from friends. Other indicators on the degree of efficiency of the information were distributed as follows: family — 10%, university actions — 7%, school — 5%, advertising campaigns of mass-media — 5%, results of professional testing — 2%, other sources

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of the information represented 1%. A rather low rating of informativity was received by schools, which confirms the assumption that work on professional orientation among schoolchildren has a formal and incidental character. A vital issue is the absence in most of the schools of necessary software for carrying out mass testing and professional processing of results collected, compounded by the absence of experts in schools in this field. In the analysis of opinions of respondents concerning the organization level of professional orientation work at schools we received the following results: it was done formally — 50%, it was limited — 30%, it was not arranged 10%, full information on a profession was received — 5%, it was done without a situation forecast for the labor market — 5%. Revealing the most widespread forms of career advice in schools, the answers of respondents were distributed as follows: meetings with representatives of universities — 40%, the organization of thematic lectures — 10%, consultations with professional people — 4%, one-off actions — 36%, studying disciplines in professional guidance for a year special — 10%. As respondents indicate, testing was held with a view to optimization of professional choice in schools. So, self-testing from the total number of respondents was done by 2% of graduates as a program; Internet testing — 5%, written tests — 80%, testing on the initiative of the school psychological service — 10%, other forms of testing — 3%. In view of the absence in the majority of schools of Rostov-on-Don of specialized program complexes in professional orientation testing, written tests were shown to be the most widespread and accessible form of testing. Thus, low productivity of the given form of testing is caused by the fact that the results received are processed formally, in view of the absence of professional psychologists in schools. Concerning the provision of the necessary help for choice optimization, respondents prefer: individual specialization profile consultations — 40%, professional orientation evaluation by psychologists — 40%, self-testing — 30%. The following control cut represents a choice by respondents of the technology of self-development necessary, in their opinion, for adaptation in the modern processes of economic modernization: professional diagnostics of the person — 10%, development of creative potential — 20%, development of business qualities — 20%, development of leadership qualities — 20%, development of entrepreneurial initiative — 30%. Thus, the sociological research conducted allows us to give an estimation of the general state of affairs at middle schools in the sphere of professional orientation of graduates based on the example of Rostov-on-Don. Despite regional specificity, the results of questioning reflect a pan-Russian tendency — a lack of programs, information and psychological maintenance in the professional orientation of schoolchildren of advanced age. Within the frames of the system approach, the necessity of developing a uniform concept of creative development and self-determination of the person in the conditions of the basic institutions of socialization — families and schools — is also obvious. The logic of the given thesis demands expansion of the age frameworks — to the level of initial classes that will promote maximum revelation of the individual abilities of the teenager and successful self-realization. The given positions are necessary for considering while developing the integrated system model of management of the process of professional orientation of the individual.

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