

The Specificity of Management in the Pedagogical System

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ABSTRACT

The purpose of this research is to investigate the specificity of management in the pedagogical system. The main research methods were systems analysis, comparison, generalization, and concretization. The research analyzed and generalized the set of principles, methods, organizational forms, and technologies of pedagogical system management. The object (the activity of managed people) and product (pedagogical management) of an educational process manager were determined. It was found that the specificity of pedagogical management consists in the features of the object, product, tools, and results of the work of an educational manager, which is reflected in the level of education and development of students, i.e. the object of management. It was found that reasonable consideration of management specificity in the pedagogical system and management thereof requires a comprehensive approach: systematic and comprehensive analysis of the results of managerial and pedagogical activity; determination of regular connections; determination of specific conditions and problems; development of a dynamic structure and technology of management; substantiation of the principles, functions, methods, and organizational forms and techniques of management in the pedagogical system.

KEYWORDS

Pedagogical system; social management;
pedagogical management; educational manager
techniques; innovation in education

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Introduction

The field of education is a crucial component of the modern society and as such should react quickly and correspond to the level of scientific and technological progress and the trends in economic development (Belyakov, 2008). With that, education has a considerable effect on socioeconomic processes, since it trains specialists, develops the personality, and forms certain types of worldview (Stromquist & Monkman, 2014).

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Nowadays, it is important to train competitive specialists, provide their high level of professionalism and mobility, and create favorable conditions for the bringing to light the talent and creative potential of workers, which necessitates the development and update of all fields of social and spiritual life and a new level of pedagogical system management (Fathema, 2013; Hazelkorn, 2015; Baimoldaev, 1996; Simonov, 2009).

A logical feature of modern scientific thought is the search for a universal model of social development, which would harmoniously combine knowledge and effective technologies, traditions and innovation, national features and global trends (Bakhru at al., 2013; Gorbunova, 1995).

Progressive transformation of public relations requires radical changes in the human consciousness and behavior (Duncan, 1996). The development of the modern society towards democracy and a free market economy cannot leave education untouched. Therefore, the significance of this research for world science is that it describes and systematizes the scientific achievements related to the theory and methodology of pedagogical system management, since education has a direct effect on the development of the personality and facilitates social transformations. In order to become a full member of global politics, economy, and culture, Kazakhstan should support and develop the human potential as a crucial factor for the development of the country.

History shows that education is not only a factor of social progress, but also a powerful driving force of human development (Yelmanova, 1992; Lucas, 2014). Modern scientists consider education a universal category that is an object of various fields of knowledge. Education is regarded as a source of knowledge on the one hand and a driving force of development on the other hand (Belyakov, 2008; Dahlstrom, Brooks & Bichsel, 2014).

Various methods are used to study education-related issues. Some researchers view education as a system (Llewellyn at al., 2013; Dahlstrom, Brooks & Bichsel, 2014). This approach is the foundation of the concept of continuous education as a process of formation and development of the personality. Some scientists emphasize the importance of the unity of education and research for the development of the scientific potential (Strauss & Borenstein, 2015).

The role of education under sustainable human development is also of importance. Some studies regard education as the main source of transformation of the worldview content in a globalized world (Tight, 2014).

Recent studies have paid much attention to the management of the activity of educational institutions and innovation in education. In particular, the problems of educational innovation management have been studied (A Framework for Qualifications of the European Higher Education Area, 2007; National Qualifications Frameworks, 2007).

The results of these studies show that the scientific and pedagogical thought is gradually going down the path of stimulating the development of education through managerial approaches and methods. However, the technologies of pedagogical process management, which would meet the modern requirements of education, are understudied, as is the combination of technologies, methods, concepts, ideas, and functions in a certain systematized and theoretically grounded structure of pedagogical management.

It is also worth noting that the problem of management in the field of education is understudied in national science, while the theoretical and practical solution of certain problems in the field of pedagogical management is limited to the solution of specific pedagogical problems. The integrative, multilevel, continuous, and hierarchical nature of managerial and pedagogical training is an important factor in the development of the problem.

At the same time, the investigation of pedagogical system management touches upon all the fields of managerial and pedagogical activity (Bakhru, et al., 2013; Hustad & Arntzen, 2013) and the features of educational processes (Fathema & Sutton, 2013; Bacon, 2014; Baimoldaev, 1996; Saudabaeva & Khairullin, 2008), which makes the pedagogical aspect of this problem all the more important.

Therefore, the purpose of this research is to investigate the essence and to distinguish the specificity of management in a pedagogical system.

Methods

The methodological framework of this research included the studies of Kazakh and foreign researches on the problems of management in the field of education. Systems analysis was used as the main research method to determine the factors that affect pedagogical system management, to discover their connection with the mechanism, methods, tools, and principles of management in the field of education. The research also used the methods of analysis and synthesis to formulate scientific and practical conclusions regarding the problems and prospects of improvement of management in the field of education, to study the conceptual framework of foreign and Kazakh experience of management in the field of education, and to plan courses for improving the targeted managerial influence on pedagogical systems.

The information framework of the research included primary and reported statistical data that were published in periodicals (Focus on the Structure of Higher Education in Europe, 2007; Parr, 2013), materials from foreign (Al-Qahtani & Higgins, 2013) and Kazakh (Saudabaeva & Khairullin, 2009) educational institutions, materials from periodicals and Internet media, scientific and practical conferences, and regulatory and reference materials.

The theoretical analysis analyzed the studies devoted to the development of higher pedagogical education in the world and in Kazakhstan, generalized and outlined the flaws in these studies.

Data, Analysis, and Results

The analysis of pedagogical literature found that management as a field of human activity emerged with the formation of society – a community of people that interact with each other in a certain way during the joint execution of actions.

Social management as a special type of human activity emerged from the need to organize human cooperation and originated from the division of labor (which is based on unequal capacities) on the one hand and from the social and historical conditions of a concrete society on the other hand. At that, social management is an activity that covers the entire scope of social life – political, economic, and spiritual spheres.

Educational organization management is considered herein a type of social management. It is a modern area of managerial activity that is aimed at helping institutions that operate in market conditions to achieve certain goals through the rational use of financial, human, and other resources based on scientifically reasonable forms, principles, functions, and methods (Mikulskiene & Mazrimiene, 2013; National Universities Methodology, 2015; Toktarova, 2013).

In dependence on the direction of managerial activity the following things are separated:

- production management – determination of optimal volume and structure of production output, people arrangement, organization of the material supply and equipment repair, removal of failures in the production supply, quality control, current staff management, labour stimulation;
- material-technical provision and sales management – conclusion of contracts, formation of sales channel, delivery and storage of raw material, production shipment;
- innovation management – the process of scientific studies, applied developments, implementation of the innovations into production;
- staff management – personnel management and qualification increase, improvement of the labour conditions and staff way of life, solution of conflicts;
- financial management – budget process, formation and distribution of the monetary resources, estimation of the current and perspective financial state;
- marketing management – study of the market demand on products, development of price and advertisement policy;
- accounting management – process of gathering, processing and analysis of data about functioning of organization, comparison with planned data, problem detection, opening of the reserves of the potential available.

Presently the majority of researchers consider that semantically there is not essential difference between the notions "control" and "management", although they are not identical. Management can be understood as the scientific control, theory and practice of management in the social organizations; it serves one of the models of control, method of control organized in a certain way. Thus, the control represents wider notion than management. Management doesn't give unified recipes; it teaches how to achieve success, when knowing the methods, means and ways of solving these or those managerial tasks.

With certain share of conditionality the above-mentioned directions of the managerial activity can be considered to be varieties of management: production management (management of production), management of provision and sales (material-technical provision and sales management), innovation management (management of innovation), staff-management (personnel management), financial management (financial control), marketing – management (marketing management), accounting-management (management of accounting).

A person (manager) that executes the managerial activity on the basis of corresponding scientific principles with application of special ways, methods,

forms and means is the central and system-forming factor in any social system. Manager is a professional, whose tasks are organization of the concrete production work within the certain number of workers, functionally subordinated to it. From the specified point of view the term "manager" is identical to the words "senior manager", "director".

The basic principles of management include:

- appropriateness and consistency;
- competition and maximal involvement of the executors into decision-taking;
- scientific character in combination with the elements of art;
- functional specialization in combination with universal activity;
- optimal combination of the centralized regulation and self-control;
- accounting of the individual peculiarities of workers – provision of the unity of rights and responsibilities in each chain;
- consistency and continuity;
- control and coordination of actions;
- accounting of the regularities of both interpersonal relations and group behaviour.

The modern stage in the development of management as a scientific theory is characterized by the attempts of system approach realization to its usage. Within social-technical management five basic research directions were distinguished:

- 1) conceptions of the management on the basic of cybernetic approach.
- 2) development of the general theory of systems, transforming technical-biological approaches to organization and management;
- 3) conceptions, integrating the sciences about the human factor with the aim of their practical realization;
- 4) situational and comparative approaches, which model optimal variants of activity in organization;
- 5) institutional-political direction, which considers organization as a cell of society on the whole.

During the last decades of XX century the sharp increase of the role of general and special scientific knowledge, professional and personal qualities of a human in public and economic life. This circumstance put the sphere of education into the number of priority areas of human activity and conditioned its rapid development on all directions. Information revolution gave beginning to the development of principally new means, methods and forms of management. The burst-like intensification of the role of public sciences and human factor is observed in the management of social systems, including the educational ones. The intensive implementation of the market relation in education became the essential and stimulating factor of the development of pedagogical system management theory in the modern world.

We'll call the network of institutions (organizations) of education as a pedagogical system independently on their organizational-legal forms, types and kinds, and also bodies of management in the area of education. The science of pedagogical system management is called to study the processes of setting and

solving the managerial tasks and obtain knowledge about conditions, at which these tasks are solved optimally. The regular connection between properties of managerial subsystem, management process characteristics and results of functioning and development of the educational institution at different external and internal conditions are the general subject of management.

The private subjects of consideration of the internal management of pedagogical systems are:

- educational-educative process: execution of the management with accounting peculiarities of educational process technology;
- staff policy of education institution management: selection and arrangement of pedagogical and managerial staff, technical personnel; execution of attestation of workers of the institution; their motivation for effective work; creation of the favourable physiological surrounding;
- acquisition of innovations and their effect on the process of institution development, also requiring management: planning, organization, control and motivation;
- execution of interaction with social-economic surrounding of educational institution and search of the optimal variants of pedagogical system management, functioning and developing in the concrete society etc.

From the viewpoint of solving the managerial tasks, the pedagogical system has specific peculiarities. Administration of the educational institution can serve as an aggregate of management subject in relation to workers' collective. At the same time, it is the subject of management (managed subsystem) on the part of educational institution government bodies. Moreover, administration consists of the managers of certain directions of activity of the educational institution, each of which manages the aggregate of workers subordinated to it, and forms the managed subsystem.

Education management is an activity on balanced organization of pedagogical system functioning on the general state, regional and internal institutional levels; this activity provides social-economic and organizational-pedagogical functioning of the educational process optimally. The education management include planning, organization, supervision and control, which determine functioning and development of the basic educational and providing processes, and also uninterrupted self-development.

The analysis of modern models of management in various countries found they differed in emphasis and adherence to various scientific schools of management (Skribans, Lektuers & Merkurjev, 2013; Biggs & Tang, 2011; Jaschik & Lederman, 2014; Yelmanova, 1992; Fathema, 2013). For instance, American management follows a technocratic approach: efforts are aimed to improving the effectiveness of the production; clear assignment of functional roles; individualism.

Japanese management is based on equality and cooperation: social protection of personnel (lifelong hire system); rotation of jobs (transfers employees every two-three years both horizontally and vertically, gives new knowledge and experience); corporate spirit – everybody works for the benefit of the organization (the remuneration system implies that the salary and bonuses depend on the results of the organization in general).

Arabian management is more person-oriented than labor-oriented: members of the organization are more motivated by friendly relationships than by set goals; organizations are based on family relations; hierarchy and vertical relations are of special importance; observation of terms and punctuality are not as important as they are in European and American management.

It was found that the transition of Kazakhstan to market relations requires modernizing the management practice in the main social spheres, including the field of education. However, the current theory and practice of management in the country (Saudabaeva & Khairullin, 2009) is insufficient to suggest the existence of a Kazakh school of management. Dynamic changes in competition require recognizing the main twenty-first-century strategies of management, which are relevant for the pedagogical system in Kazakhstan:

- flexibility, management of development;
- decentralization of and reduction of bureaucratic obstacles in management;
- recognition of the human priority in social and workplace relations.

The prospect of the development of the pedagogical system in Kazakhstan should be clear and easy to understand for all members of the educational process. Every team with its manager models the educational institution of the future. The management of such an institution implies new functions of the director as a manager:

- forecasting – modeling the prospect;
- representative – public activity;
- managerial – result.

The functions of management are understood as an activity of subjects, executing the complete technological process of managerial cycle with appropriate achievement of actual results. The participants of management realize such system functions as information-analytical, motivational-target, planned-prognosticating, organizational-executive, control-diagnostic, regulatory-correctional and developing. The close interrelation of functions displays itself on the different level of organizational structure of the management system. At that all functions keep unity and integrity in the whole process of educational institution management.

Information-analytical function of management creates the basis for the whole educational activity, plays role of the original in taking the managerial decision. Mastering the ability to use methods of gathering, analysis and storing of information is the most important task for the educational process manager.

Motivational-target function forms the motivated approach to determination of the aims of education process. Planned-prognosticating function of management provides the determination of concrete and realistic aims, directed on the achievement of higher qualitative state of the object. The developing programme takes into account the internal and external aggregate pedagogical conditions, ways, means and methods of action.

Organizational-executive function promotes to execution of accepted target solutions, coordinated work of the subjects of organizational structure and interaction of all participants of the educational process.

Regulatory-correctional function of management provides removal of reasons of technological failures in the processes, which take place.

Control-diagnostic function of management establishes the conformity of the obtained data to the requirements of educational standard.

In the managerial activity the notion of subject and object of management are separated. A person or the group of people serve as a subject of management, which are found in one or other degree of organizational structure of management. The object of management is the organization (institution) of education, and also all processes, which happen there and are directed on the educational action. Their unity in the integral pedagogical system displays itself in interaction of subjects and objects of management.

The specified functions can be realized in different forms of management. We understand the form of management as an independent structural element of managerial activity, which reflects the content and organization of educational-educative process in school. The forms of management exist objectively, but are determined by the type of educational institution and management levels in dependence on the objective and subjective factors.

The forms of management can have different structure and directions: instruction-methodical and theoretical seminars, meetings of pupils' collective, pedagogical advices, methodical associations, conferences, pedagogical readings and etc.

Methods of management are the methods of achievement of the managerial aims. They can be classified according to:

- the object of management (state, regional);
- the subject of management (administrative, economic);
- the aims (strategic, tactical, operative);
- the influential mechanism (social-political, organizational-administrative, organizational-pedagogical);
- the style (authoritative, democratic, liberal);
- the time of managerial actions (perspective, long-term, current).

In dependence of the direction of managerial effect it is possible to speak about the groups of organizational-administrative, pedagogical, social-psychological and economic methods.

Organizational-administrative methods and the area of education as means and methods of organizational and administrative effect provides rhythm of the work of educational institutions and bodies in conformity with the requirements of regulatory documents. The content of organizational-administrative methods of management includes determination of the organizational structure, function of each chain of the educational system, principles of its construction, provision about activity of objects, approved by the superior bodies.

Organization-administrative methods are different. Direct familiarization with the work on places (in schools, kindergartens, out-of-school institutions and etc.), detection of the achieved successes and present shortages or violated regulatory documents are the most important of them. Instructing the collective of workers of the checked institution is provided together with it in order to provide their fruitful work further. The results of checking are discussed in collectives, registered in the form of resolutions, decrees and instructions of the

superior organizations. All this can be called the method of direct "vivid" effect on the managed object.

Organizational-administrative methods also include meetings, seminars-meetings, and conferences, conventions of the education workers, on which the issues of school operation and other educational organizations are discussed, and recommendations on the different issues are taken. They also include written decrees, instructions, and resolutions on separate issues of activity of the management objects. It is important that each resolution or decree would have been delivered to executors timely. This group of management methods includes the methods of selection, pedagogical staff arrangement taking into account their organizational abilities.

Pedagogical methods of management are called to provide effect on the objects through the methodical measures. Traditional august conferences can serve as an example, where not only basic educational-educative tasks for the future academic year are discussed, but also the results of past academic year are summarized, and the exchange of advanced experience of work is organized. The effective methods of management also include conduction of scientific-pedagogical conferences of teachers on educational-educative work, exchange of advanced pedagogical experience inside school or jointly with several schools of the region and city. Conduction of the pedagogical experiments, organization of disputes, seminars, reports, provision of school teachers with the corresponding methodical literature – all these are active pedagogical methods of management.

Social-psychological methods of management are also typical for the educational institutions. It is known that aspiration to unite and work in friendly collective is peculiar to pedagogues. The social-psychological methods of management include organization and conduction of business industrial meetings, detection and encouragement of pedagogues, working creatively.

The economic methods give possibility to an education institution manager to be independent in executing estimation, as in the conditions of commodity-money relation each educational institution acts as an independent participant of the property turnover. Educational organization pays bought commodity-material assets, conduction of repair works, and pays out the salary in accordance with independently specified educational-educative loading, extra charges for additional payment and assigned honours.

The right choice of economic methods of management allows using financial, labour and material resources, and forming necessary economic relations between employees of educational organization and creating objectively necessary conditions for achievement of better final result.

Complication of the functions of modern professional educational organizational caused substantial changes of organizational character. In the life of collectives and managers the need appeared in the search of new forms and methods of organizational-pedagogical activity directed on solution of the new complex tasks and effective management of this activity.

The researchers detected that pedagogical system management would be more effective at observance of the following principles.

- democratization and humanization of management;
- system and integrity of management;
- management publicity – openness and accessibility of information;

- rational combination of centralization and decentralization;
- substantiated combination of one-man management and collegiality;
- scientific substantiation (scientific character) of management;
- objectivity, completeness and regularity of information provision;
- motivational provision of management etc.

Each of the specified principles has its own peculiar role in management. For example, the principle of democratization and humanization of management supposes development of the self-activity and initiative of all participants of educational process (managers, pedagogues, participants and pupils and etc.), their attraction to open discussion and collective training of the managerial solutions. Democratization of life has begun with introduction in practice of electivity of the managers of educational institution with implementation of the mechanisms of competitive selection and contractual system in selection of managing and pedagogical staff. Publicity in the management is based on openness, accessibility of information, when each participant of the educational process not only knows about deeds and problems of institution, but also takes participation in their discussion and expresses his point of view on the issues of institutional activity. Democratization of management is realized through regular reports of administration and council of the institution before collective and public, through publicity of the accepted solutions. Democratization of management of educational institution is expressed in that the transition from subjective-objective relations, from monologue to dialogue between managing and managed subsystems takes place.

The complex of principles, methods, organizational forms and technological ways of management of pedagogical systems, directed on the increase of effectiveness of their functioning and development is called pedagogical management. The specificity of pedagogical management lies in the peculiarities of subject, production, instruments and results of labour of the educational management. Subject of educational process manager's labour is the activity of people, which he supervises. The product of labour is information about educational-educative process, instruments of labour is a word and speech. The result of educational process manager's labour is the level of training, breeding and development of pupils, i.e. object of management.

Excessive centralization of the managerial activity is inevitably leads to intensification of administration, forging the initiative of managed subsystem (low-level managers, teachers and pupils), which in this case becomes simple executors of others' managerial will. In the conditions of excessive centralization, doubling of managerial functions frequently leads to losses of time, financial and other resources, reloading of all educational process participants from the managers of school to pupils.

On the other part, decentralization of management, understood as the transference of the range of functions and authorities from the higher bodies of management to lower ones at immoderation of its execution, as a rule, leads to reduction of the effectiveness of pedagogical system activity. This is expressed in reduction of the role of managed subsystem (manager and administration on the whole), in partial or private loss of analytical and controlling functions, executed by the authorities. Excessive interest in decentralization leads to appearance of serious problems in the collective's activity, and appearance of interpersonal and

inter-level conflicts and misunderstandings, unjustified opposition of administrative and public authorities of educational organization.

The reasonable and last scientifically advancement-based combination of centralization and decentralization in the management of educational organization provides optimal interaction of managing and managed subsystems, administrative and public authorities in the interest of aim achievement. The optimal combination of centralization and decentralization creates necessary conditions for democratic, interested and qualified discussion, acceptance and further realization of the managerial solution on the professional level, exclusion of doubling of the managerial functions and increase of the effectiveness of interaction of all structural subdivisions of the system.

The practice of delegating authorities supposes the following types of managerial responsibility: general (for creation of necessary conditions of activity) and functional (for concrete actions). The authorities are delegated to positions, but not to individual, who take it in this moment. The following types of managerial authorities can be delegated as: conciliatory (warning), instructive (linear, functional), consulting, control-reporting, and coordinating.

The daily work, specialized activity, private issues, and preparatory work are subjected to delegation. Such functions of the leader, as goal setting, taking decisions on the development of educational organization strategy, control of results, staff management, their motivation, task of special important and task of high degree of risk, unusual, exclusive deed and unusual deeds, which do not leave time for explanation and re-checking and tasks of strictly fiduciary nature, are not subjected to delegation.

Considering the educational institution as the whole system, we mean that it consists of the parts (components), which the collectives of pedagogues and pupils (wards) etc. can be. This system can be also represented through the processes, which also compose the certain system. For example, the process of education is the educational process subsystem, and lesson is the subsystem of the educational process. At the same time the lesson is the complex dynamic system, which structural elements are educational-educative tasks, methods of education and upbringing selected by it, content of the learning material and forms of pupils' cognitive activity organization. In order to set the exact application of managerial interaction, it is necessary to divide system into the parts, blocks, subsystems and structure-forming elements.

It is widely documented that the estimation of system effectiveness serves the real result. If pedagogue rightly formulated the educational-educative task on one or other educational-educative moment of classes, but could select learning material, and corresponding content under it, then whatever methods of education and forms of cognitive activity organization he applied, it is possible to receive high positive result. Thus, the level of system integrity depends on its target setting, completeness of components, quality of each component and thickness both between component, and each of them in the whole.

Discussion

When defining the concept of "social management", this research shares the opinion of E. Sharma (2015), who regards management in social systems as the influence on any socioeconomic system, which aims to organize it, preserve its

qualitative specificity, improve and develop it; it is determined by the social nature of labor and the need for human communication in labor.

It is also worth noting that the modern educational process is developing as a social and pedagogical system, wherein the subjects of the pedagogical process are of a collective nature, which emphasizes the role of the personality, the individuality of the teacher and student, and, consequently, the regulation of interpersonal and business relations in the team. Therefore, it is possible to conclude that it is necessary to abandon authoritarian and administrative methods in favor of economic and psychological-pedagogical methods of management, which stimulate the creativity of teachers and students, their strive for self-education, self-improvement, and achievement of greater results of their collaboration. These trends have also been mentioned by other researchers (Hazelkorn, 2015; Toktarova, 2013; National Universities Methodology, 2015).

The implementation of market relations in the economic practice, as evidenced by the pedagogical theory and practice (Gorbunova, 1995; Lee, Hsieh & Chen, 2013; Mikulskiene & Mazrimiene, 2013) requires a radical change in the methods of management at all levels of the managerial hierarchy. This determines the interest in studying new approaches and forms of management and the basic concept of socioeconomic system management.

It is possible to improve the management of modern education in Kazakhstan by modernizing the functions of the manager (the traditional ones are the organizing and controlling functions). The update of management functions is facilitated by the world trend of modelling educational institutions. For instance, Finland, the Netherlands, and the USA have expressed public support for the determination of the mission of educational institutions – it is a general goal of development that is created, discussed, recognized, and supported at all levels of the educational institution – administration, teachers, students, parents, and the public (Hobley, 2015; Lucas, 2014).

The problem of centralization and decentralization in the management lies in optimal delegation (distribution) of authorities at taking managerial solutions. The limits of educational institution manager's authorities are determined by the policy, procedures, rules and duty instructions. The reason of violation of the authorities is frequently the excess of power. Delegation of authorities promote to elimination of power excess and involvement of all workers in the area of institution management.

The system and integrity character in pedagogical system management are determined by the system of educational process nature and create real preconditions for effective management of it. The system approach in the pedagogical system management induces the educational institution manager and other participants of managerial activity to execute it in the district system, in unity and integrity of all interacting components and subsystems. Realization of this principle promotes giving managerial activity of sequence, logicity, harmony and, finally, effectiveness.

The study of social-pedagogical system essence, their integrity is impossible without complex approach. The complex approach at studying the educational system supposes:

- system and through analysis of the results of managerial and pedagogical activity;
- detection of regular connection on vertical and horizontal plans;
- determination of the specific conditions and problems of society;
- development of the dynamic structure and technologies of management;
- substantiation of the management content.

Thus, the system and integrity of one or other process serve as interdependent typical peculiarities. The substantiated accounting of these peculiarities in the practice of management, and pedagogical system require realization of the complex approach.

This research is related to the problem of management practice in the pedagogical system, which cannot be solved completely without proper knowledge of the specificity of this system, its structure, and the essence of its main concepts. This is the foundation for the guidelines and limitations regarding concrete practical actions.

For instance, the new reality of Kazakhstan imposes new requirements to the quality of education, including a universal training of secondary and high school graduates, their adaptation to social conditions, personality-oriented learning, and its informatization, which shows the importance of education for the sustainable human development. The requirements cannot be with a random set of actions in the field of education; they require comprehensive, holistic, and centralized actions, accurate use of substantiated methods, techniques, and tools. In particular, in modern conditions, the areas for reforming the pedagogical system management in Kazakhstan are as follows:

- clear definition of competencies, authority, and responsibility of management agencies of all levels, support of their interaction;
- switch from distributive to regulatory management of the educational system;
- development of state-public forms of education management.

Since the determination of the specificity of management in the pedagogical system is a complex and multilevel problem that reflects the effect of various conditions, this research attempted to solve this problem. The research used a modern and tested scientific and methodological framework to assure the accuracy of the results, which was also facilitated by the consideration of a reasonable number of factors that affect the specificity of management in the pedagogical system. However, the complexity and multilevel nature of the problem necessitates further development of the scientific results obtained in this research, both by the authors of this paper and other researchers.

Conclusion

Successful management in any educational organization can be fully designed, described, characterized, and implemented based on a combination of principles, functions, methods, organizational structure, and organizational mechanism.

It was found that the practical implementation of the effective set of management tools in education should be preceded by their theoretical and methodological design and analysis. The new concept of educational management in Kazakhstan should take into consideration the modern needs and realities of the Kazakh society and the prospects of its development in a dynamic and globalized world.

The specificity of pedagogical management consists in the following features:

- object of educational process management (the activity of managed people);
- tools of labor of the educational process manager (the word and speech);
- results of educational process management (level of education and development of students as the object of management).

The research found that consistency and continuity are interrelated features of pedagogical management. The main approach to the organization of a pedagogical system is the comprehensive approach, based on clear (presented herein) order of implementation, substantiated principles and functions, expedient methods, and organizational forms and techniques of management in a pedagogical system.

In terms of the prospects for further research in this area, it is possible to argue that this study does not cover all the aspects of this scientific problem. Follow-up studies can investigate the issues related to the development and implementation of the managerial and pedagogical technologies in the educational process.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- A Framework for Qualifications of the European Higher Education Area. (2007) *Bologna Working Group on Qualifications Frameworks*. Published by: Ministry of Science, Technology and Innovation, Bredgade 43, DK-1260–Copenhagen. 18p.

- Al-Qahtani, A. A., Higgins, S. (2013) Effects of traditional, blended and e-learning on students' achievement in higher education. *Journal of Computer Assisted Learning*, 29(3), 220-234.
- Bacon, E. (2014) Neo-collegiality: restoring academic engagement in the managerial university. London: The Leadership Foundation for Higher Education. 348p.
- Baimoldaev, T. M. (1996) Management as a method of modern school management. Almaty: Almaty Management University. 426p.
- Bakhru, K. M., Sanghi T., Seema M. & Medury, Y. (2013, July) A Principal Component Analysis of Teaching Competencies Required for Management Education. *Arth Prabhand: A Journal of Economics and Management*, 2(7), 23-29.
- Belyakov, S. A. (2008) Educational Policy and Management of Education. *University Management: Practice and Analysis*, 6, 12-31.
- Biggs, J. & Tang, C. (2011) Teaching for quality learning at university. McGraw-Hill International. 238p.
- Dahlstrom, E., Brooks, D. C. & Bichsel, J. (2014) *The Current Ecosystem of Learning Management Systems in Education: Student, Faculty, and IT Perspectives*. Direct access: <http://www.educause.edu/ecar>.
- Duncan, J. W. (1996) *Great Ideas in Management: Lessons from the Founders and Foundations of Managerial Practice*. Translated from English. Moscow: Business. 272p.
- Fathema, N. (2013) *Structural Equation Modeling (SEM) of an extended Technology Acceptance Model (TAM) to report web technology adoption behavior in higher education institutions*: PhD Thesis. Auburn University, Auburn, AL, United States, 230p.
- Fathema, N. & Sutton, K. (2013) Factors influencing faculty members' Learning Management Systems adoption behavior: An analysis using the Technology Acceptance Model. *International Journal of Trends in Economics Management & Technology*, 2(4), 20-28.
- Focus on the Structure of Higher Education in Europe 2006/07. (2007) National Trends in the Bologna Process, EURYDICE, Brussels: The information network on education in Europe. 46p.
- Gorbunova, N. V. (1995) Interschool management: theory and experience of pedagogical and managerial innovations. Moscow: Business. 236p.
- Hazelkorn, E. (2015) Rankings and the reshaping of higher education: The battle for worldclass excellence. Basingstoke, Hampshire: Palgrave Macmillan. 322p.
- Hobley, J. (2015) Vocational Pedagogies: the Science of Teaching or the Teaching of Science? *Journal of Education and Training Studies*, 3(2), 16-18.
- Hustad, E. & Arntzen, A. B. (2013) Facilitating Teaching and Learning Capabilities in Social Learning Management Systems: Challenges, Issues, and Implications for Design. *Journal Of Integrated Design & Process Science*, 17(1), 17-35.
- Jaschik, S. & Lederman, D. (2014) *The 2014 Inside Higher Ed Survey of faculty Attitudes on Technology. A Study by Gallup and Inside Higher Ed*. Washington, DC, 44 p. Direct access: <https://www.insidehighered.com/news/survey/online-ed-skepticism-and-self-sufficiency-surveyfaculty-views-technology>
- Lee, Y., Hsieh, Y. & Chen, Y. (2013) An investigation of employees' use of e-learning systems: applying the technology acceptance model. *Behavior & Information Technology*, 32(2), 173-189.
- Llewellyn, D. C., Usselman, M., Edwards, D., Moore, R. A., Mital, P. (2013) Analyzing K-12 Education as a Complex System. In *120th ASEE Annual Conference & Exposition, Atlanta, GA*, 83-91.
- Lucas, B. (2014) Vocational pedagogy: what it is, why it matters and how to put in practice. *Report on the UNESCO-UNEVOC virtual conference*, 12-26 May. Bonn: UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, 32-38.
- Mikulskiene, B. & Mazrimiene, D. (2013) Transformative quality of doctoral education: the way new standards are negotiated. System dynamics approach. In *Proceedings of the 31th International Conference of the System Dynamics Society*, 134-142.
- National Qualifications Frameworks: Development and Certification. (2007, May) *Report from Bologna Working Group on Qualifications Frameworks*. Brussels, 64p.
- National Universities Methodology. (2015) Retrieved March 17. Direct access: <http://www.usnews.com/education/best-colleges/articles/2014/09/08/how-us-news-calculated-the-2015-best-colleges-rankings?page=2>

- Parr, C. (2013) The Best University Workplace Survey: staff unheard? *Times Higher Education*, 15, 51-62.
- Saudabaeva, G. S. & Khairullin, G. T. (2009) Educational process management in the professional system education. *Technology in Kazakhstan school*, 4, 43-52.
- Sharma, E. (2015) Role of higher education institutions towards developing the human capital of the world through competency mapping. *Journal of Business Economics and Management Sciences*, 2(1), 1-9.
- Simonov, V. P. (2009) Pedagogical management: Know-how in education. Moscow: Business. 234p.
- Skribans, V., Lektuers, A., Merkuryev, Y. (2013) Third Generation University Strategic Planning Model Development. Published in: *Proceedings of the 31th International Conference of the System Dynamics Society*, 1-7.
- Strauss, L. M. & Borenstein, D. (2015, March) A system dynamics model for long-term planning of the undergraduate education in Brazil. *Higher Education*, 69(3), 375-397.
- Stromquist, P. N., Monkman, K. (ed.). (2014) *Globalization and education: Integration and contestation across cultures*. R&L Education. 234p.
- Tight, M. (2014) Collegiality and managerialism: a false dichotomy? Evidence from the higher education literature. *Tertiary Education and Management*, 20(4), 294-306.
- Toktarova, V. (2013) Training and methodological support of the implementation of the main educational programs in the electronic educational environment of the higher education institution. *Proceedings of the Volgograd State Pedagogic University, Series "Pedagogical Sciences"*, 2(77), 28-32.
- Yelmanova, V. K. (1992) Higher Education Abroad. Moscow: Moscow State University Publishing House. 49p.