

# Technology, Innovation, and Experience of Managerial Culture Formation



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**Abstract:** In the article, the managerial culture is considered as the main component of the evaluation of the effectiveness of the contemporary teacher, who meets the requirements of training a competitive specialist. The emphasis is made on managerial training of a teacher, who is able and willing to organize a productive educational process. The content of organizational and managerial skills is influenced by psychological characteristics of the coordinator of an activity, such as enhanced responsibility for the effectiveness of professional work, subjects of professional interaction; creative approach to organization and management in solving professional problems; and specificities of communication in the course of solving organizational and managerial problems.

It is an indisputable fact that organizational and managerial activities are a substructural component of the integral professional activity of the subject of labor. It involves the presence of formed motives, knowledge, skills, personal and behavioral qualities that enable the manager to effectively organize the process of a particular type of professional activity.

This understanding of organizational and managerial activities allows concluding that the readiness of the subject of labor for this activity is closely related to the training system of professionals at high school.

The above allows concluding that managerial culture for the education manager is a criterion of efficiency of his organizational and managerial activities, which is essentially identical to professional activity, while the development of this parameter is most effective during the study period at the university.

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**Keywords:** managerial culture, professional activity, management training, manager.

## I. INTRODUCTION

The effectiveness of professional activity of the teaching staff is determined by the level of pedagogical culture of staff members, the nature of interpersonal relations, understanding of collective and individual responsibility, the extent of organization and cooperation. A contemporary teacher simultaneously performs the functions of a teacher, a leader, and a public figure. Polyfunctionality of the activities of individual teachers determines the polyfunctionality of the entire teaching staff [1].

Professional activity of the teacher needs management training, certain professional qualities, professional culture, which is part of the managerial culture. This activity enriches the individual, expands capabilities, incorporates in the socio-economic interaction with the team, forms the motivational sphere, changes the value orientation, i.e., is the aspect, which largely determines the managerial culture. Its importance and development are the organizational and managerial aspect of the education manager. In order to specify the specifics of the formation of the managerial culture of education managers, consider the specifics of the organizational and managerial aspects of the education manager.

Managerial culture in the 21st century is considered by the authors as an integrative quality, which has both personal and social significance. It is a social factor, which regulates activities, relations, the interaction of subjects, as well as a factor of self-regulation in the choice of management decisions. Based on the principle of integrity and systematic approach, the authors consider the managerial culture as a seamless part of the culture of society [2].

## II. LITERATURE REVIEW

The systematization of existing definitions and analysis of organizational and management activities allows identifying the most significant authors' approaches, in which the type of activity under consideration relates to the goals of production, the objectives of the workforce, and leads to their productive functioning.

Thus, A.D. Darzhaniya in her work analyzed the unity of organizational and managerial activity components, as a type of professional work, consciously aimed at the organization of joint activities of a professional group (team) of people and management over them in accordance with the objectives of production/organization [3].

The conducted socio-philosophical analysis allowed A.Yu. Shabaikin defining organizational and managerial activities as those that led to order in the structure and purposeful processes of collective human activity that required the coordination of their actions. According to this author, the activity of organizing the structure and processes of management appears to be organizational and managerial activities arising within the framework of the purposeful collective activity of people based on coordination of their actions [4].

Loginova V.V. considers organizational and managerial activities, which can be formulated as "optimal decision-making" in the situation of choosing the best alternative in achieving the goals of the organization [5].

Such solutions ensure the successful operation of the enterprise/organization or its units. At that, they result from organizational and managerial activities.

Based on the above, the essence of organizational and managerial activities can be distinguished as follows: the impact of the management entity on the management object for getting feedback and the desired result, which is defined by the purpose and objectives of a particular activity.

Popova L.A. examines organization and management as a substructural component of the overall professional activity. This activity is characterized by the presence of mandatory developed motivational, intellectual, personal, behavioral qualities, knowledge, and skills. Such personal education allows a graduate to act adequately in various professional and life situations. At the same time, this author considers the readiness for organizational and managerial activities through the formation of organizational and managerial competence [6].

It should be noted that, in general, organizational and managerial activities in scientific research are considered on the example of employees of the education system, future specialists in the social sphere, managers, production managers, representatives of various professions, etc.

At that, the following main characteristics are distinguished [7]-[11]:

- personal and professional qualities of the executive (O.V. Blagova, E.M. Zarubina, V.P. Okulich-Kazarin, E.V. Kulikova, V.G. Minenko, A.A. Morusov, K.V. Khoroshun, A.I. Chernykh, B.A. Yasko, etc.);
- integrative characteristics of personality (knowledge, skills, abilities, motives, beliefs, values, etc.) (E.M. Zarubina, L.G. Kiseleva, A.V. Kozlov, O. I. Storozheva, etc.);
- personal constructs and characters (intelligence, creativity, leadership style, way of self-actualization, potential, etc.) (Z.R. Azhimov, V.V. Goncharov, O.Yu. Zaslavskaya, V.P. Okulich-Kazarin, B.A. Yasko, etc.);
- communicative component (content-organizational, motivational-regulatory, process-forming, diagnostic-correcting subsystems) (Yu.V. Eremin, O.E.

Lomakina, R.S. Seitova, G.P. Shchedrovitsky, N.V. Yazykova, etc.);

- abilities (K.Yu. Sidorovsky, V.G. Suranov, V.N. Fefelova, Yu.S. Tsench, I.A. Shirshova, etc.);
- professional readiness, and professional competence (R. Boyatsis, E.Yu. Zimina, A.I. Panarin, A.V. Sergeichuk, O.V. Usacheva, etc.);
- the system of knowledge and skills necessary to implement this type of professional activity (I.V. Ilyina, O.V. Popova, N.P. Shamina, etc.);
- the subject area in which the person shows readiness to perform this activity (A. A. Gorbachev, V.V. Ivanov, A.V. Karpov, etc.);
- practical experience (social and professional status, attitude, qualification, skills, etc.) (M. Woodcock, I. Prigozhin, A.V. Ostrovsky, D. Francis, etc.).

In their monograph "World experience of personnel management", researchers P.V. Zhuravlev, M.N. Kulapov, and S.A. Sukharev reveal the main characteristics of the phenomenon under study [12].

Based on the findings of the above researchers, I.E. Vorozheikin analyzed the main objects, basic needs of staff, as well as personnel management directions [13].

Bazarov T.Yu. and B.L. Eremin give the following results of a comparative analysis of the main functions of personnel management at large enterprises of the United States and Germany [14]. Basically, the personnel management functions at large enterprises in the USA and Germany are identical. At that, the cultural component is characteristic for personnel management in both countries. This component is immanently present in the professional, organizational, social, and material components. This ensures the success of the personnel management process.

In comparison with the USA and Germany, managerial culture in Japan is a mix of the classical concept of European management and Japanese traditionalism. The main functions of management in Japan include planning, organization, motivation, and control. The well-known American expert in the field of management William Ouchi characterizes the Japanese management system as a set of spiritual and cultural values that have developed naturally and logically stemming from the uniqueness of the Japanese nation, as a complex of interrelated elements, whose basis is trust, a subtle understanding of people, as well as close, like kinship, relationships [15].

The increasing role of the cultural factor in management is one of the most important requirements of the current situation. In foreign studies of G. Jago, I. Lapiņa, I. Kairiša, D. Aramina, K. Samuelsson, S. Lindblad, S. Strese, D.R. Adams, T.C. Flatten, M. Brettel, P. Thanomwan, and P. Buncha, which deal with the managerial culture, it is noted that this concept is complex and multidimensional [16]-[19].



### III. PROPOSED METHODOLOGY

#### A. General Description

Belya K.Yu. identified the following main components in the content of management activities of the teacher [20]:

- information-analytical, i.e. formation of the main blocks of information (collection, analysis, processing, and storage);
- motivational-target, i.e. the definition of activity goals;
- planning and prognostic, i.e. forecast of the nearest development zone, implementation of the plan;
- organizational and execution, i.e. general guidance on the optimization of activities based on the work plan;
- control and evaluation, i.e. control in all main areas of activity;
- regulatory-corrective, i.e. regulation and correction in all areas of activity at a given level [21].

Consequently, the managerial culture of the manager in the field of education as an integrative indicator of the creative initiative of management behavior and activity develops in unity and interaction with all components. The professional outlook of a specialist is characterized by its cognitive capacity, and intellectual potential in the field of management. The range of interests provides the level of needs in the course of management. Worldview determines the social orientation of the managerial culture of the individual. Skills and abilities determine the breadth of subject-practical and theoretical management experience of the specialist.

Researchers A.E. Kapto, N.P. Kapustin, A.M. Moiseev, V.N. Petrova, E.N. Pletneva, M. M. Potashkin, V.S. Selivanov, V.P. Sergeeva, V.P. Simonov, M.E. Sysoeva, P.I. Tretyakov, T.I. Shamova and others pay much attention to the management methodology of vocational education, educational systems, control as a function of management (goals, objectives, methods of control), monitoring of vocational education, etc.

In pedagogical theory, the concept of "education management" can be characterized as follows.

"Education management is:

- a) a complex organizational and structural system, within which the structures of regional education management, the relevant municipal management structures, as well as the management structures of the very educational organizations are distinguished;
- b) a process, i.e. an interrelated set of cyclically repeated processes of development and implementation of decisions aimed at the functioning and development of the education system and its main parts. Education management includes planning, organization, management and control, determining the functioning and development of the main educational processes that ensure continuous self-development". [6]

In the course of management of an educational institution, the following functions are manifested in the close interrelationship: motivational and target, information and analytical, planning and prognostic, control and diagnostics, regulatory and corrective, as well as organizational and executive. Management activities are carried out due to the

presence of the object – the educational organization and all the processes in it, as well as the subject – a person or group of people.

The activity of all subjects in the educational organization is carried out based on the following major management principles: democratization and humanization of management of pedagogical systems; integrity and systematicity of management; a rational combination of centralization, unity of command and collegiality; objectivity, observance of legal norms, etc. In the context of innovative processes taking place in the contemporary education system, it is necessary to mention specific functions, such as the organization of experimental sites, scientific consulting, etc.

The most important conditions for the innovation effectiveness in the management of educational organizations are information and technological support of the management process; control of all processes occurring in the educational organization; involvement of teachers and students in innovation; scientific and methodological, material, and financial support of the educational organization, as well as the actualization of cultural and educational space and innovation.

The education system of the Russian Federation is due to the fact that it performs the social functions of the state in the best interests of society and human. Therefore, the main functions of the state in the management of education include the establishment of education levels, and the status of educational organizations; the adoption of legislative and regulatory documents in the educational space of the state, and the protection of human rights; the definition of state policy in the field of education, goal-setting, and defining priorities.

In this regard, the education system of the Russian Federation carries out functions such as state accreditation and licensing of educational organizations; adoption of educational standards as a form of state control over the training quality; financing of education; determining the structure of the education system in the state; creating conditions for the development of the education system, etc.

Management of state and municipal educational organizations is carried out based on the legislation of the Russian Federation and the Charter of the organization on the principles of unity of command, collegiality, as well as self-administration in the forms of the Board of educational organization (Board of Trustees), meeting, pedagogical council, academic council, etc.

The purpose of the present experimental research is to test the applied model and identify the optimal pedagogical conditions for the formation of a managerial culture of students as future education managers in the educational process of the university. In the course of experimental work, observations were conducted over students and best practices of the Department of pedagogy, psychology, law, history, and philosophy of the Bauman Moscow State Technical University were studied.

## B. Algorithm

In the course of the study of academic disciplines during extracurricular activities, conditions were created in teacher-student interpersonal relations to form a managerial culture of students as future civil servants.

The study involved more than 250 respondents. Groups of 1-4-year full-time students of vocational training, majoring in

the specialty of Economics and Management (44.03.04) were investigated.

## C. Flow Chart

The model of the managerial culture formation in students as future managers of education in the educational process of the university includes the following units (see Table I).

**Table-I. Components of the managerial culture formation model in students as future education managers.**

<b>TARGET UNIT</b>	<p><b>Purpose:</b> forming a managerial culture in students as future education managers during the educational process at the university;</p> <p><b>Tasks:</b> mastering knowledge, skills to solve professional problems; forming professionally important qualities; development of communicative abilities; education of the culture subject.</p>
<b>CONTENT AND TECHNOLOGICAL UNIT</b>	<p>The program of managerial culture formation in students as future managers, which includes the purpose, objectives, principles, methods, work forms, and the theme of events;</p> <p>Technologies: problem-based learning, student-centered education;</p> <p>Stages of managerial culture formation:</p> <p>1st stage: actualizing personal and social importance of managerial culture;</p> <p>2nd stage: adopting ethical norms, value orientations of the education manager individuals;</p> <p>3rd stage: forming an individual style of activity (ISA).</p>
<b>RESULTING UNIT</b>	<p><b>Levels of managerial culture formation:</b> low level (formal), medium level (functional), and high level (creative).</p> <p><b>Formation criteria and indicators of the managerial culture components of students as future managers:</b></p> <p>Cognitive (professional knowledge necessary for the qualitative performance of professional duties by a future specialist, knowledge of moral principles, norms of professional ethics, providing subject-subject interaction).</p> <p>Motivational and value (motives of professional activity (interest, etc.), value attitude to morality, ethical standards, awareness of regulatory guidelines, rules of conduct governing the activity).</p> <p>Activity (skills and abilities necessary for professional activity, ability to cooperate with subjects, creative approach in solving management problems).</p> <p>Communicative (readiness to implement subject-subject interaction, communication, based on moral principles and ethics, generation of managerial ideas, development of various methods and means of communication).</p>

## IV. RESULT ANALYSIS

At the ascertaining stage of the test, the experimental group (EG) and the control group (CG) were created, as well as diagnostics was carried out to identify the level of formation of the phenomenon under study and the associated parameters. First of all, the importance of managerial culture for students, their attitude to this phenomenon, and its understanding were evaluated.

During the test, scientific interest has been focused on

information related to the issue regarding professionally important qualities (PIQ) which, according to students, are the most significant, as well as their ranking. The results have shown that 60.5% of students note the importance of PIQ and managerial culture, particularly, in the activities of the future specialist, and note the need for its formation during the educational process at the university.



Another 26.4% of respondents have assessed the importance of managerial culture while believing that not every student can acquire this quality, but only those, who strive for it in the course of studying at the university. At that, 13.1% of testees have expressed indifference to this issue.

Surveys, observations, and conversations with students and

teachers have led to the conclusion that basically all students pointed to the importance of the managerial culture of the specialist and the insufficient level of its formation during study at the university.

In order to specify the conditions for the most effective development of managerial culture, a correlation analysis of the data was carried out. The results are presented in Table II.

**Table-II: Correlation of the managerial culture components of education managers with the effectiveness of the managerial system and the features of the communication environment.**

Parameters		Stress resistance	Anxiety	Communication	Level of the corporate culture	Psychological climate	Credibility	The efficiency of the managed system
CC	Communicative competence		-0.70	<b>0.83</b>	0.74	<b>0.81</b>		0.74
	Organizational competence			0.59		0.75	0.78	0.59
	Managerial competence				0.78	<b>0.84</b>		0.81
PRC	Reflection	<b>0.83</b>	<b>-0.82</b>	<b>0.87</b>		0.57	0.65	0.73
PMC	Motivation	0.69	<b>-0.86</b>	0.63		0.68		
	Managerial skills	0.64	<b>-0.84</b>	0.62	<b>0.83</b>	0.71		0.65

CC – competence component, PRC – professionally-reflexive component, PMC – personal-motivational component,  $p \leq 0.05$ .

The analysis of Table II allows concluding that secondary components of the managerial culture, such as communicative, organizational, managerial competence, as well as managerial qualities, professional reflection, and motivation are significantly and strongly related to the effectiveness of the management system and the peculiarities of the communication environment, however these relationships are largely uneven.

It is necessary to pay attention to the fact that based on the established relationships, the effective development of managerial culture components such as competence and professional-reflexive component determine such parameters as the credibility and psychological climate. The personal-motivational component is associated primarily with the level of the corporate culture. Each of the components is significantly associated with stress resistance and anxiety.

It is important to note the branching and strength of the relationships between the declared parameters and the effectiveness of the managerial system that indicates the fact that the optimization of the management system is a condition necessary for the effective development of the managerial culture of education managers.

## V. CONCLUSION

The information obtained at the ascertaining stage of the research work convinces of the need for purposeful work on the implementation of organizational and pedagogical conditions to form the managerial culture of the education manager. This work should include the following activities:

- organizing methodological work to improve the managerial culture of education managers;
- forming teachers' motivation to increase the level of managerial culture;

- raising the level of moral and ethical culture.

During the formation of the managerial culture of students as future education managers, the research focus was on three aspects: personal, managerial, and technological.

The personal aspect is associated with the ability and willingness of the student as the future education manager to act as a coordinator of activity towards the nomination and implementation of managerial decisions. It depends on the values and meanings of various activities at the university (sports, labor, cultural, volunteer, military-patriotic, etc.).

The managerial aspect is associated with the adequacy of management actions and interaction with others in the student team. It is determined by the peculiarities of organizational norms, organizational hierarchy, formal and informal rules, ethical codes, as well as moral principles and norms.

The technological aspect represents the interrelation of the following components: system-design, prognostic, integration, transforming, corrective-regulating, organizational-procedural, social-motivational, etc.

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