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Professional Culture of the Specialist of the Future

**FORMATION OF PROFESSIONAL AND ETHICAL CULTURE OF
SPECIALISTS OF NATIONAL ECONOMY**

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Abstract

The purpose of the article there is a consideration of relevant problems of professional and ethical culture of specialists of national economy (on the example of transport and logistics specialists). The aim of this paper is to address the urgent problems of formation of professional and ethical culture of specialists of national economy (on the example of transport and logistics specialists). The authors examined the ethical aspects of the provision of transport services to passengers with disabilities, improving the quality of transport services of passengers and cargo, as well as saving the environment from the harmful effects of transport environment in conjunction with achieving of the commercial interest of carriers in such external results of their activities. The authors examined the ethical aspects of the provision of transport services to passengers with disabilities, improving the quality of transport services of passengers and cargo, as well as ensuring environmental stability from the harmful effects of transport provided that the commercial interest of carriers in such external results of their activities. The article deals with the experience, the latest developments and main directions of development of professional and ethical culture specialists of national economy (on the example of transport and logistics specialists). The authors proposed improvement of the training system for national economy (on the example of transport and logistics specialists), including the mechanisms of formation of ecological and professional competence of future specialists in the course of their training.

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1. Introduction

The successful implementation of economic activities primarily depends on specialists and managers. Currently, the economy is undergoing active innovation processes that place high demands on managers and engineers. Compliance with these requirements is ensured by the professional culture of management personnel. In addition to traditional training in basic production activities, workers in various sectors of the economy must comply with ethical standards developed by many years of practice. The content of ethical norms is constantly updated under the influence of scientific and technological progress and in connection with the emergence of new forms of business. A characteristic feature of the modern process of socio-economic development is the rethinking of many stereotypes in the field of professional and ethical culture. Innovative is the transition to a sustainable development strategy, the greening of education, a comprehensive assessment of the effectiveness of employees and businesses on the basis of an integrated presentation of international and external results.

2. Problem Statement

The ongoing changes in the economic system are of global importance and are relevant for Russia. The transition to business management and socio-economic relations in accordance with the concept of sustainable development requires specialists and production managers a fundamentally new attitude to issues such as environmental protection, social mission of economic activity. Implementation of appropriate model of management requires employees' psychological adjustment, reinterpretation and additions the ethical principles, which they used to guide their activities. Therefore, the article discusses the experience of modernization of professional and ethical culture of employees of the production management apparatus, offers innovative approaches and solutions in the field of professional education and teaching activities.

3. Research Questions

The analysis of the available experience is executed and tendencies of transformation of professional and ethical culture of modern managers and engineers are established. The characteristic features of formation of professional and ethical culture of specialists of national economy on the basis of the concept of sustainable development are investigated. Recommendations for improving the system of training specialists in universities and in training.

4. Purpose of the Study

The aim of this paper is to address the urgent problems of formation of professional and ethical culture transport and logistics specialists.

5. Research Methods

Used by the authors of the article methodology is based on the situation analysis, lessons learned, principles of sustainable development, ecology, theories of usefulness and effectiveness, transport and educational technologies.

6. Findings

6.1. The main directions of transformation of professional and ethical culture

At present, the problems of preserving the environment, on the state of which the very existence of man as a biological species, have come to the fore of social and historical development. Production activities have a destructive impact on the environment. As a result, the reserves of natural resources are depleted, soil degradation occurs, air composition and climate change. Production activities carried out on a large scale can lead to serious man-made disasters. Urbanization of the population of developed countries not only allows urban residents to get convenient access to various services and provides personal communication of people but is the cause of many new acute social problems. For example, modern transport and logistics are the material basis of territorial sphere of application infra-structure and labour more than 12% of all employed in the national economy. Transport is the most dangerous type of man-made activity. In Russia in traffic accidents die annually 19th. person and another 215th. persons injured. Transport in cities is the main supplier of contaminants entering the air (Donchenko et al., 2016). The proportion of professional and managerial workers in transport and logistics organizations comes up to 10%. Transport and logistics workers in direct contact with passengers and cargo owners. This makes high demands on the personal and professional qualities of employees. The elimination of the complex contradictions between the results and the strategic goals of social and historical development, according to scientists, experts, politicians and the General public, requires innovative approaches. The concept of sustainable development has been adopted by the international community as a universally recognized vector for the development of society and the economy. The implementation of the provisions of this concept requires psychological restructuring not only specialists of the national economy, but also various social groups. Such a psychological restructuring should ensure the transition from pre – emptive management and thinking in the space of "cost – profit" to the consideration and practical use of the space "man-nature". Education, from pre-school to postgraduate level, should be based on the principles of sustainable development. New environmentally-oriented technologies are being developed for this purpose in the production sector. Innovative environmental technologies will be effectively used only in the deep moral restructuring of people. Such a restructuring should change the attitude to their own way of life, attitude to other people and nature. As various studies have shown, the mass consciousness of Russian citizens is characterized by a superficial understanding of the concept of sustainable development. Most people identify it with environmental protection, forgetting the important socio-cultural component. The need for sustainable development is due to a combination of causes of life degradation. The most important of these reasons are: biological hazards caused by changes in the human gene pool under the influence of unfavorable factors of the changed natural environment, drug use and excessive doses of alcohol; economic gap (gap) between rich and poor; the growth of social tension at all levels of communication – interstate, inter-ethnic, territorial, group and family; military-political confrontation up to the possibility of its transition to world war II; cultural degradation and loss of spiritual orientation; non-compliance of educational technologies with the objective needs of sustainable development of the society and its productive forces (preservation of the priority of the economic approach). From a psychological point of view, the origins of the problem of ecological crisis are in the nature of psychics, human consciousness.

These problems are caused by the activities of individuals and their social groups according to habitual behaviour scenarios (Panov, 2017).

In ecological consciousness of people it is possible to distinguish three components: emotional; cognitive; active. Currently, the psychological state of the Russian population is far from the desired level. The study of the psychological state of the population on a sample of people of different sex, age, educational level and professional activity showed that currently 14.5% of respondents prefer to live in the present day. Living conditions of future generations (excluding their children and grandchildren) are of interest to 28.5% of respondents (Komarova, 2017).

The currently dominant technocratic thinking does not allow to overcome the environmental crisis only on the basis of traditional ethics, which puts at the forefront of man as the owner of nature. In order to successfully solve the global environmental problem, there must be a change in the consciousness, value orientations of a person, rethinking his needs and motives of behavior. One of the changes in behavior stereotypes is considered to be the spread of universal ethics. Universal ethics does not consider nature as an object of human influence. It does not distinguish between the value of man and other living beings, extends the same ethical principles to the whole nature. Universal ethics, in contrast to the utilitarian production and economic approach, denies the attitude to nature in General and to its separate objects as raw materials, objects of labor, passive "environment" (Ivleva, 2017).

Recently, researchers and government bodies have focused on equity and equality in the design and implementation of various transport projects. The authors of the article (Pereira, Schwanen & Banister, 2017) performed a comparative analysis of different approaches to solving these problems. The main theoretical approaches are utilitarianism, libertarianism, intuitionism, egalitarianism, etc. The article substantiates the provision according to which first of all it is necessary to provide transport accessibility for potential passengers. This is possible on the basis of minimum accessibility standards. Such norms should be established by social standards of transport services. The use of these standards will reduce external costs by equalizing transport accessibility for different social groups of citizens, primarily for the poor. It should be noted that at present the order of the Ministry of transport of the Russian Federation dated January 31, 2017 N NA-19-p the social standard of transport service of the population at implementation of transportations of passengers and baggage by motor transport and city land electric transport is approved. This standard establishes standards of transport accessibility of routes and stopping points of public transport, other indicators of the quality of transport services to the population.

Traditionally used methods of assessment, such as transport systems, do not take into account different aspects of transport accessibility and mobility of the population. Ensuring transport accessibility and the level of mobility of different groups of the population has a significant impact on the popularity of political decisions, on the achievement of social integration and cohesion of the society. The authors of the article (Lucas, van Wee, & Maat, 2016) suggest using the method of evaluation of these indicators, combining the basic principles of ethics and egalitarianism theory. The mathematical apparatus of the method is based on the Lorentz curve and the Gini index. The use of the recommended method makes it possible to justify the minimum standards of transport accessibility for local transport. This makes it possible to motivate the transport policy taking into account costs and benefits, including for different social groups.

6.2. Formation of professional and ethical culture of specialists of national economy on the basis of the concept of sustainable development

Engineering and technical staff have a significant impact on resource management and sustainable development of territories, production facilities, settlements. Their impact on sustainable development is carried out in three areas: environmental conservation, social issues and economic development. This activity of engineers is supported by their professional associations (associations), proclaiming and seeking compliance with professional and ethical standards voluntarily adopted codes.

An ethical approach to the performance of professional duties is instilled during the training of the future profession. Therefore, teachers play a significant role in obtaining students' knowledge and skills in the areas of professional ethics, ecology, socially-oriented work in the workplace. In universities, such knowledge and skills are communicated to students in the study of various academic subjects. In order for the knowledge and skills of sustainable development acquired in training to be practically realized by specialists, it is necessary to ensure the commitment of the authorities and the entire society to the implementation of appropriate policies. Development projects that address pressing social and environmental challenges, rather than merely achieving economic efficiency, should be approved (Thorpe, 2018).

The article (Gunckel & Tolbert, 2018) critically assesses technocratic, utilitarian and neoliberal approaches to the existing stereotypes of professional activity and education of specialists within the framework of professional and educational standards, including the Next Generation Science Standards-NGSS. The authors draw attention to the need to eliminate contradictions between utilitarian and ethical approaches to solving professional problems. When receiving education, in addition to unitary competencies, it is necessary to inform students of competence in solving a complex of socio-political and global world problems. In fact, the authors propose to evaluate educational programs and education itself from an integrated perspective, providing a combination of technological training with the formation of an ethical Outlook of specialists, and to make management decisions based on the criterion of fairness.

Unfortunately, not all training efforts under the concept of sustainable development are currently achieving their goal. For example, considered in the work (Bielefeldt, Polmear, Canney, Swan, & Knight, 2018), the study aimed to establish the knowledge of University students and graduate students of the ethical and social problems in the sphere of their future professional activity, as well as the level of knowledge in the field of Environmental Engineering – EnvE. 114 educational institutions were surveyed 505 mentors. Only in 30% of cases it turned out that students received sufficient knowledge in ethics and social consequences of production technologies used in their future professional activities. As a result, it is recommended to include issues related to professional ethics, environmental protection and social relations in the topics of various courses.

Professional ethics can be recognized as real if there are the following three institutions that have public recognition: first, the presence of an organized professional community, establishing and controlling the moral responsibility of its members (such communities may be several); secondly, the developed professional self-consciousness of the body of professionals, based on respect for the profession and secured by the presence of an appropriate system of education and scientific schools; third, the functioning

of organizational structures that support moral and professional-ethical standards of thinking and professional activity of a specialist.

Developed countries are characterized not only by a high level of industrial development and quality of life, but mainly the presence of a developed civil society. In particular, such institutions are organizations that unite specialists of different professions in their ranks. Historically, the relevant organizations have their pedigree from the Guild associations that arose in the middle ages. Currently, professional organizations are most common in the United States, where there are numerous engineering and scientific trade unions and societies, which are United under the auspices of major organizations: The American Association of engineering societies, the American society of engineering education and the American Association for the advancement of science. These organizations ensure the maintenance of an appropriate level of professional competence of their members, the use of standards of public certification of specialists, coordination of communication of representatives of the professional community with the public and authorities, promotion of professional education in the sphere of their interests, the publication of professional literature, etc. One of the characteristic manifestations of social activity of professional communities is the publication of ethical codes.

In modern Russian practice are also beginning to be developed and enforced professional codes of ethics, binding for the members of the respective professional communities standards of personal and public behaviour during professional activities.

Comparison of domestic professional ethical codes with similar documents used, for example, by American colleagues, showed the following. In the American code of engineering, priority is given to provisions aimed at preserving the health, safety and well-being of people. The main priority in the Russian codes of professional ethics is professionalism and performance of official duties. It is noticeable that the domestic codes are based on the usual thinking of the Soviet period, when the main was the production approach. We think that such a clear dissonance of the Russian codes in comparison with the principles of sustainable development is a "child's disease" of growth, since the social self-regulation of professional consciousness is currently in its infancy. It is also important that professional communities in Russia are often formed under the administrative pressure of the Executive authorities, which is unacceptable. Here you can see a complete analogy with the organization of collective farms in the USSR, when a good idea of joint voluntary work was replaced by an administratively established plan.

Russian codes emphasize the relationship of the specialist with the employer and the client to whom the service is provided. For example, the code of professional ethics for an engineer in Russia and the Code of professional ethics for Russian design engineers contain a provision according to which an engineer is responsible before the law.

The considered differences clearly indicate the lack of development of civil society institutions in Russia. Namely, these institutions form the framework of genuine democracy enshrined in the Constitution of the Russian Federation.

Currently, in Russia there is a process of revival of the spiritual life of citizens belonging to various religious denominations. In this regard, it is of interest to integrate the efforts of secular and spiritual organizations to improve the psychological and ethical situation in society. World religions have always tried to educate believers in spiritual and ethical qualities and virtue. The author of the article (Punzi, 2018)

raises a very interesting question of the integration of spiritual social education with secular technical education. Thus, the spiritual education of Catholics is based on numerous papal documents. Such documents in recent history (1990-2015) are based on the achievement of the common good and preservation of the environment. Punzi (2018) analysing these documents from the standpoint of an engineer, provides a model for building a socially responsible professional decision making to technical experts. The proposed model can be used for students of any faiths as a guide to professional activity for students and practicing engineers and technicians. The model is based on the principle of social responsibility and aims to prevent undesirable consequences of using the technocratic paradigm. The model is recommended not only for engineers, but also for training and practical work of other specialists.

One of the most important areas for the formation of sustainable professional and ethical outlook of modern specialists are transport and logistics organizations. Transport supports production relations of all producers at the stages of movement of raw materials and finished products. Transport ensures the freedom of movement of all citizens enshrined in the Constitution of the Russian Federation. Therefore, the public mission of transport is to overcome space and time. Logistics organizations provide temporary storage of the commodity mass, ensuring the docking of consumers and producers. At present, the content of the work of managers managing the transportation of various goods is significantly changing. There are fundamentally new forms of service, providing for the integration of information, transport and marketing services to buyers of goods: integrated network structures – Internet of Things, Industry 4.0, "TechNet", cyber-physical systems, quantum systems, smart manufacturing, smart cities, distributed registers, digital economy, etc. form the need for new competencies of the management staff. In turn, the production competencies of employees of logistics organizations are radically transformed. Changes in the content of professional and ethical relations, there is a previously unknown technological culture. All this requires the transformation of the existing education system (Sergeev, 2017).

The sustainable development of passenger transport requires coordinated solutions to a range of technical, technological, economic, environmental, political, social and ethical issues (Kent, 2015). The greatest success in the development of transport systems has now been achieved by a number of EU countries. A comparative analysis of various aspects of sustainable development of passenger transport in different European countries and their regions (May et al., 2017; May, 2013). Everywhere sustainable transport development is carried out with the active support of the state and local authorities. The implementation of sustainable urban transport development programs aims to create an alternative to mass use of cars for travel, reduce environmental emissions, solve social problems (including the problem of transportation of persons with disabilities), ensure the mobility of the population. For this purpose, a system of centralized monitoring of information used in transport planning (Kukely, Aba, & Fleischer, 2016) is being created. The use of monitoring data and computer models improves the quality of public transport services and the efficiency of vehicle use (Stawiarska & Sobczak, 2018). Russia is also starting work on the transition to the development of transport systems in accordance with the concept of sustainable development. With the participation of the authors of the article, studies were carried out and draft regulations governing the complex of relations between carriers and Executive authorities were prepared (Spirin, Zavyalov, & Zavyalova, 2016).

Sustainable development should be managed by managers with relevant knowledge and skills and guided by professional and ethical standards (Nuzir & Dewancker, 2014). Recommendations of the authors of the article on the training of specialists for sustainable development management are presented in the next subsection of the article.

6.3. Formation of professional and ethical culture of a specialist in the course of training at the University

Professional and ethical culture of a specialist in the course of training at the University (at different levels of education – from undergraduate to graduate) is the result (stage) of his / her personal and professional development and is closely connected with the phenomenon of ecological and professional competence of a person. We consider ecological and professional competence as an acmeological invariant of professionalism, as an integrative phenomenon, the result of integration of the processes of development of ecological culture and professional competence of a specialist. This is reflected in such its essential characteristics as the system of environmental professionally-oriented views and beliefs of the individual; the need to update the environmental potential of professional activity; the system of professionally-oriented environmental knowledge; readiness for ecological and professional activities; ability to ecological and professional reflection.

We have developed and tested a theoretical model for the formation of ecological and professional competence of future specialists, in the structure of which there are target, meaningful, technological and diagnostic modules. The model assumes an integrative, dynamic, adaptive, open nature of the educational process, focused on eco-cultural values and involves the implementation of interrelated stages of functional integration of ecological and professional education: a) acculturation - the process of initial convergence of structural and functional components of ecological and professional education (ideological, motivational, cognitive, activity and practice, reflexive) as a result of the interpenetration of the cultural aspects of their content. The result of the acculturation stage is the formation of ecological and professional orientation of the individual; b) coadaptation – the process of adaptation by the individual resulting from the passage of the stage of acculturation of socio-cultural experience to the General professional tasks of training. The result of the stage of co-adaptation is the development of professionally important qualities of the individual, determined by the specifics of ecological and professional activity; c) synergy - the process and the result of actualization of values and meanings of ecological culture in professional activity. The result of the stage is the formation of acmeological invariants of professionalism (ecological and professional self-organization, self-regulation, self-development).

The content of the process of formation of ecological and professional competence of University students is included in the consistent formation of ecological and professional orientation of the individual, its professionally significant qualities determined by the specifics of ecological and professional activity, as well as the formation of acmeological invariants of professionalism, and is expressed in a set of educational modules and programs integrated into the process of professional education. Cultural and acmeological approaches were used as the basic approaches that determined the perspective of the study of the process of formation of ecological and professional competence of students of humanitarian University. On the basis of acmeological approach integration of ecological and professional education is considered in our research as designing of conditions for personal and professional development of the specialist

possessing high level of ecological culture; ecological and professional competence-as "Acme"-top of professional growth of the modern specialist. The value of the cultural approach in the formation of ecological and professional competence of students of humanitarian University is the idea of the ecological culture of the individual as part of the General culture of the individual, the relationship of the process of its formation with the large – scale process of cultural development, hence-the focus of the process of environmental education on the development of environmental culture of the individual, the development of pedagogically adapted socio-cultural experience. In the disclosure of the cultural approach we reflect the axiological component, the idea of the determining role of ecocultural values in the development of ecological culture of the individual; the axiological basis of modeling the process of formation of ecological and professional competence of the specialist; the special potential of professional education in the development of environmental culture of the individual, which is associated with its value component, the availability of the necessary content and means to introduce students to the ideals of environmental ethics, the formation of their moral principles of interaction with nature (Krutova, 2016).

The above methodological positions provided the opportunity to develop conceptual ideas about the formation of environmental culture of the future specialist on the basis of competence-based approach implemented in the process of higher (professional) education of University students. In the context of the General trend of humanitarization of education, the importance of cultural, axiological foundations of professional education is increasing. The principles of humanism and humanization of educational space are organically intertwined with the ideas of modern ecological education, which has recently acquired a distinct socio-cultural emphasis, since the study of ecology is aimed at the system of human interaction with the surrounding socio-natural environment and to determine its place and role in this system (Grishaeva, Spirin, & Matantseva, 2016).

The humanitarian aspects of modern professional education are closely related to the ideas of the global concept of sustainable development. The evolution of environmental education into education for sustainable development reflects the content of a new round of development of international public consciousness aimed at creating conditions for overcoming the global environmental crisis. Sustainable development is a way of life of the world community, in which the main task is to ensure normal living conditions for the entire population of the planet without prejudice to the interests of future generations. The concept of sustainable development in recent decades has been the subject of discussion by the world community on issues related to the solution of global environmental problems. Currently, the concept of sustainable development causes a lot of scientific discussions, which usually relate to the real possibilities of its implementation. This skepticism is based, first of all, on the real possibilities of limiting the economic growth of developed countries, overcoming the attitudes of the consumer society. The results of the negotiation process in the format of the last large-scale international conference "Rio +20" on environmental issues, held in Rio de Janeiro (Brazil) in July 2012 showed that in fact the world's economic giants are in no hurry to green production cycles, as this will lead to the loss of their economic and political influence in the international arena. Natural questions: "is not the theory of sustainable development utopian?"; "Is it possible for humanity to ecologize the economy and exist in harmony with nature?"; "Is it possible to significantly reduce the rate of human consumption of goods and services?"; "How to conserve natural resources while addressing the global problems of hunger and poverty in underdeveloped

countries?". Today the world scientific community is looking for answers to these questions, because the very fact of the existence of human civilization depends on them.

Taking into account the logical connection between the concepts of "professional and ethical culture of the individual" and "ecological and professional competence of the person" as a whole to its part, we consider the essential features of the competence approach adopted as a fundamental for the implementation of modern professional training at the University. The competence-oriented model of education is analyzed by us in the light of the cultural approach, which has as its basis the design of pedagogical interaction as the development of pedagogically adapted socio-cultural experience in the learning process. In this context, we emphasize that the culturological approach to the content of education, in contrast to the scientist one, is much broader and carries a deep humanitarian meaning. At the same time, culture is understood by us in this case in the broadest sense and includes, first of all, the results of people's activities (technical objects, the results of cognitive activity, works of art, legal norms, etc.); secondly, human qualities realized in activity: knowledge and skills, professional skills, the level of intellectual, ethical and aesthetic development, worldview, etc. As a conclusion in this regard, we state the wide possibilities of competence-based approach to the design of the process and the results of professional training at the University, focused on the development of various activities, which fully actualizes the potential of personal and professional development of students. Competence-based approach in modern professional humanitarian education allows the student to form an individual ecological and educational space, organizing their personal experience and designing the development of their professional and ethical culture.

7. Conclusion

The article deals with changes in the relations of specialists and production managers with the business environment in connection with the transition to sustainable development of the economy and social sphere. Successful implementation of sustainable development of regions and enterprises of various sectors of the economy imposes new requirements for the training and work of personnel, primarily specialists and managers. Employees and students need not only to learn new technologies, but also to transform their professional and ethical consciousness. This transformation requires a change in the professional paradigm of the specialist. Instead of a utilitarian economic approach (cost – profit) to the implementation of production activities, in the conditions of sustainable development, a specialist is required to make management decisions that take into account, in addition to international results, also external results: prevention of environmental pollution, socially oriented final results.

Professional communities in different countries create organizations such as associations for self-regulation of their professional activities with the obligatory observance of ethical principles. Codes of professional ethics are developed and used to regulate relations between members of associations and their members. In Russia, this work is just beginning. It should be borne in mind that the establishment of workable codes of professional ethics should be based on the developed institutions of civil society. The concept of sustainable development has been successfully applied in various European countries. In particular, this concept is used in the formation of modern systems of urban transport and logistics. In Russia, in order to implement the strategy of sustainable development of urban transport, draft regulatory documents have been developed to regulate the relations of carriers with the authorities.

The transition to sustainable development requires innovative changes in the system of professional education. On the basis of their research and with the involvement of the results obtained by other scientists and developers, the authors made recommendations to improve the system of training in educational institutions. These recommendations are aimed at improving the professional and ethical culture of graduates of educational institutions and specialists who improve their skills.

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