

THE CONTENT AND STRUCTURE OF FUTURE ENGINEERS' COMMUNICATIVE CULTURE

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Abstract

Purpose: The article deals with the problem of the development of the communicative culture of future engineers, which determines success in any field of activity.

Methodology: This is analytical-review research whose data have been collected based on previous studies. These data are gathered in four general topics: studies on the theory of culture; studies on the communicative culture of the individual; theories of professional communication and personal development in the process of communication and studies on the methodology of higher professional education.

Result: The oil industry in petroleum engineers with formed professional competencies reflected in the Federal State Standard of Higher Education in the direction of bachelor's studies in Oil and Gas, involving the development of a communicative culture of graduates of technical universities, successfully working in a team, presenting themselves, building relationships with other people.

Applications: This research can be used for petroleum engineers and graduates of technical universities.

Novelty/Originality: In this research, the model of the content and structure of future engineers' communicative culture is presented in a comprehensive and complete manner.

Keywords: *communication, culture, communicative culture, skill, knowledge.*

INTRODUCTION

Higher vocational education is designed to meet the needs of the individual, the state in obtaining citizens of education and professional competence. The main function of the content of such education is to provide a holistic orientation in the world from the standpoint of human interests. "Education presupposes such a level and character of mastering the content of the sciences, at which this knowledge can be effectively used to validate the interests of man, optimize his relationship with the natural world, technology, and knowledge".

A good term for success in the labor market is communication skills, the ability and ability to correctly express one's thoughts, i.e. mastering the basics of vocational communication.

A good specialist today is one who not only competently applies the knowledge obtained at a higher education institution but is also able to independently and creatively thinking, has the skills of correct communication ([Gruzdeva and Gruzdev, 2018](#)).

The communicative culture of an engineer is of great importance for communication, i.e. knowledge of the norms of speech; the ability to correctly use language forms facilitates the assimilation of transmitted information, fosters speech literacy among future specialists, and disciplines their thinking.

The fundamentals of the communicative culture of the future engineer are formed in the process of professional training in higher education; therefore the subject of our scientific interest is the phenomenon of the "communicative culture of the future engineer". In the coordinates of the study of this phenomenon, it is necessary to study the content of this concept. In connection with this, let us turn to the analysis of the definitions of the concepts "culture" and "communicative culture". The purpose of the study is to formulate its author's understanding of this concept and determine its structure on the basis of the provisions and concepts highlighted by scientists.

METHODOLOGY

This is analytical-review research whose data have been collected based on previous studies. These data are gathered in four general topics: studies on the theory of culture; studies on the communicative culture of the individual; theories of professional communication and personal development in the process of communication and studies on the methodology of higher professional education ([Mendes & Silva, 2018](#); [Shayakhmetova & Chaklikova, 2018](#)).

RESULTS

The term "communicative culture" originated from two generic concepts of "communication" and "culture".

Culture is:

1. "... the totality of the production, social and spiritual achievements of people";

2. "... a high level of development of any kind of human activity; a certain set of symbols, ideas, values, customs, traditions, norms, and rules of behavior transmitted by generation to generation, through which people organize their life together, etc. ”.
3. "... all the objective reality created by mankind, which embodies our own strengths and relations”;
4. "... constantly changing value orientations, traditions, social and political relations, worldview, created and shared by a group of people connected together by a set of factors, which may include common history, geographical location, language, social class, and religion”.

Further analysis of the key concept of this work involves the study of the concept of “communication”, “communicative culture”.

Makarov M.L. considering communication from the standpoint of constructivism says that communication is a "special case of interaction based on interpretation, involving coordination of actions in an interaction, as well as satisfying the need to express internal states".

“Communication is one of the forms of universal communication between phenomena, namely, directional communication, which is expressed in the transmission of signals (the latter is not necessarily a conscious, meaningful process)”.

Communication is viewed primarily as an interaction, it is recognized that each of the participants influences the course of this interaction. It is emphasized that communication is not just a transfer-reception of information, but the creation of a certain community, a certain degree of mutual understanding between the participants.

From the position of sociologists, communication is a social process.

A person enters into communication in order to achieve certain goals (for example, I enter into conversation in order to express the thoughts, feelings, and relationships that already exist within me).

“Communication is a socially conditioned process of transmitting and perceiving information, both in interpersonal and in mass communication through various channels using various verbal and non-verbal means”.

Communication is the formative process, the state of human existence, the mode of human existence, that fundamental, primary social process in which we, its inevitable participants, jointly create, reproduce and transform our social worlds, the qualities of our existence.

In linguistics, communication is the targeted transfer of some content using language forms from one participant in a communication situation to another. Thus, the peculiarities of the concept of “communication” are: joint activities of communication participants, communicative interaction, a means of regulating and coordinating joint actions, etc ([Kanashiro et al, 2018](#)).

We agree with the opinion of Matyash OI and adhere to its wording of this concept: “Communication is not just a process of information exchange, it is a process of creating a certain community in which we interpret information and relate our meanings with the meanings of our communicative partners, thus creating a certain degree of mutual understanding. In this case, it is not so much self-expression and transmission-reception of already formed meanings, but joint sense-creation ”.

Highlighting the main features of communication and culture, we formulate the concept of “communicative culture”.

Many researchers distinguish the problem of communicative culture when characterizing a specialist’s professional activity with such concepts as communicative interaction, communicative skills, Communicative qualities, personality traits.

Scientists have researched the concept of "Communicative culture" in various professional fields. Let us give some examples.

The communicative culture of a university teacher is central to professional self-development, the core of which is speech culture as a means of translation and a “professional tool” of a university teacher’s activity, an important factor in his high communicative culture.

The future engineer’s communicative culture is interpreted as a professional-personal quality that ensures the success of professional communication by the subject performing effective and adequate communication activities (in terms of quality, quantity, attitude, ways of accomplishing) corresponding to the goals, norms and specificity of the professional activity ([Ezhova, et al , 2017](#)).

The manager's communicative culture is an integrative-functional personal education, reflecting a complex of assimilated variable models of situational normative-role behavior of a specialist, determining the effectiveness of personal-business interaction with partners, ensuring the appropriateness and sustainability of management decisions in the educational environment, taking into account socio-cultural specifics, traditions and ethnomedical peculiarities recipients ([Grebennikova, et al, 2014](#)).

Communicative culture of cadets of educational institutions of the Ministry of Internal Affairs of the Russian Federation - the quality of personality, integrating communication skills, values, and experience, the implementation of which, in preventive, operative, law enforcement situations, allows achieving mutual understanding between the subjects of law enforcement.

The notion of a producer's communicative culture - a set of beliefs, values, rules, and attitudes that determine the process of the producer's reasonable interaction with the subjects of his professional activity.

But it should be noted that the communicative culture of engineers is associated with the term "professional culture", which is associated with the specifics of people's work activity.

Analysis of various studies shows that the concept of "professional culture" is interpreted from different perspectives.

We, in turn, based on the analysis of the proposed concepts, highlighted the key provisions that formed the basis for the definition of the "future engineer communication culture":

- The relationship of the concept with the content of their activities, the role of the profession in society.
- The presence of high professional experience and qualifications obtained after several years of work in this field.
- The manifestation of value orientations, special knowledge, for the purpose of effective labor activity;
- The connection of professional culture with the general culture of a person.

Summarizing the above scientific research, we believe that in the definition of the concept of future engineer's communicative culture it is necessary to display the following provisions:

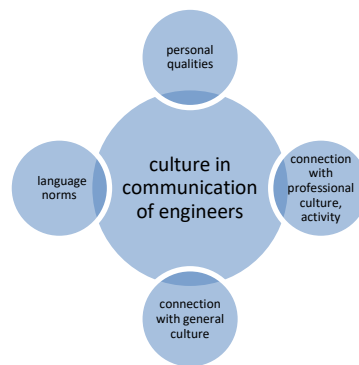


Figure 1: Structure of definition "Culture in the communication of engineers"

So, on the basis of the definitions of the concept "culture", "professional culture", "communication", we have singled out the peculiarities of the concept "communicative culture of future engineers" and formulated the following definition:

Communicative culture of engineers is an integrative personal education, which includes professional and significant personal qualities, communicative, theoretical knowledge, practical skills that ensure the success of communication of subjects in the process of professional work at the enterprise.

In scientific literature, researchers identify components related to language norms, theoretical knowledge, practical skills, and professional-oriented communication in the structure of a communicative culture ([Ilyashenko, 2017](#); [Bahremand, 2015](#)):

- Cognitive (basics of communication, rules and norms of communication specialist, ethics and etiquette; verbal literacy, consistency and consistency of judgments in interpersonal interaction, value-motivational (state of orientation of the person (openness in interpersonal interaction, adequacy of communicative perception, focus on achieving compromise), value-semantic orientations (value priorities, semantic orientations); technological (prognostic-technological skills of communicative interaction), behavioral (communicative self-communicative reflection, communicative behavior);
- Informative, motivational-targeted (characterizing the axiological component), technological, activity-speech (characterizing the practical component), creative, socially significant (characterizing the personality-creative component);
- Motivational, cognitive, operational-technological, personal, reflexive), organizational and pedagogical conditions.

So, researchers identify components in the structure of the communicative culture of a specialist related to language norms, theoretical knowledge, practical skills, and professionally-oriented communication.

Based on the content of the above points of view, we adapted the data obtained in relation to the subject of our study. Considering the specific profile of the professional activity of future petroleum engineers, we consider the communicative

culture of future engineers as a systemic phenomenon and single out structural components in its structure ([Suleri & Cavagnaro, 2016](#)).

Structural components - personal, cognitive and praxiological [Ravesteijn, W., Graaff, E. D., & Kroesen, O. \(2006\)](#).

The cognitive component of the communicative culture of engineers is:

- knowledge of the system of the language being studied, knowledge of vocabulary units and grammatical rules that transform lexical units into meaningful utterance; knowledge, allowing to choose and use adequate language forms and means depending on the purpose and situation of communication, on the social roles of the participants of communication; professional communicative knowledge, allowing to understand statements in accordance with the specific situation of communication, speech task and communicative intention, to build holistic, coherent and logical statements of different functional styles (article, letter, essay, etc.); knowledge of verbal and non-verbal means (strategies) that a person resorts to in the event that communication does not take place; such means can be a re-reading of a phrase and a repeated inquiry of an incomprehensible sentence, or gestures, facial expressions, etc [De Graaff, E., & Ravesteijn, W. \(2001\)](#).

The praxeological component characterizes the choice by subjects of professional communication of this type of speech activity that would correspond to a specific speech situation [Hoecherl-Alden, G. \(2000\)](#).

- Abilities and skills to carry out various types of speech activity in the process of professional communication; skills and abilities to comply with the rules for building the process of professional communication; making and maintaining contact; conflict prevention and resolution; awareness and justification of their own point of view [Biktagirova, G. F., & Valeeva, R. A. \(2013, September\)](#).
- Skills and abilities to establish relationships between the subjects of professional interaction, to build their strategic course of action.

The content of this personal component includes([Askhamov, A. A., Konyshova, A. V., & Gapsalamov, A. R. \(2016\)](#)):

- The ability to carry out self-development; choose and use adequate language forms and means depending on the purpose and situation of professional and interpersonal communication;
- Personal characteristics (sociability, empathy, resistance to stress, tolerance ([Gorodetskaya, I. M., Shageeva, F. T., & Khramov, V. Y. \(2015, September\)](#)).

These components are in a relationship of interdependence and give holistic description of the concept under consideration ([Walker, G., & Noda, M. \(2000\)](#)).

CONCLUSION

In conclusion, it should be noted that today the state of the communicative culture of graduates of technical universities, and, moreover, can be assessed as unsatisfactory. This concerns the inability to work successfully in a team, present yourself, build relationships with other people, your ideas and projects, comply with the requirements of speech and behavioral etiquette, coherently, logically and harmoniously express your thoughts, etc ([Delpit, L. \(2006\)](#)).

Today, a specialist must interact with people not only in Russian, but also in English, interact with representatives of the world professional environment, ability to navigate in the world professional space ([Hazelton, P., Malone, M., & Gardner, A. \(2009\)](#)).

The reasons for this unsatisfactory state of communicative culture and communicative competence are the insufficient attention of technical universities to the formation of a communicative culture, the communicative readiness of future engineers to professional activity, the lack of scientifically-based ideas about the essence, levels, and structure of the communicative skills of an engineer.

The state educational standard for higher education focuses on practical skills, professional competences, while the process of mastering professional knowledge and the formation of professional competencies should go along with the personal growth of the future specialist, the formation of the communicative component of education, with the successful formation of a communicative culture. In the years of study at the university, the future engineer knows himself, acquires significant professional competencies, an important place among which is occupied by communicative ones ([Panfilova, V. M., Panfilov, A. N., & Merzon, E. E. \(2015\)](#)).

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