

PEDAGOGICAL AND PSYCHOLOGICAL BASES ON DEVELOPING STUDENTS' PROFESSIONAL THINKING IN MEDICAL PEDAGOGICAL EDUCATION

¹Kurbanova G. N

***ABSTRACT**--The article explores the development of professional thinking of future professionals on the basis of pedagogical and psychological principles, emphasizes the importance of culture of thinking and pedagogical communication in this process, theoretical foundations, methodological principles and results of empirical research. The research revealed the pedagogical and psychological peculiarities of the professional thinking of students in the field of medical pedagogy. And our developing authorship program has been an important impetus for the development of the professional thinking of future professionals.*

***Keywords**-- vision, profession, communication, future teacher, development, education, culture, mechanism, motivation, ability, character, criteria, result.*

I. INTRODUCTION

The problem of forming a future teacher identity is addressed based on the needs and needs of each individual society. Therefore, the new Law on Education and the normative acts adopted in the present law should not be limited to the motives of the profession, professional training, professionalism and professionalism, but it is absolutely necessary to form professional thinking in the future pedagogical staff is stressed. The urgency of the professional development of modern students of higher education institutions is that the thinking of a future teacher should serve as a benchmark for the future professional maturity as a complex internal psychological activity. In the period of socio-economic reforms and changes in our country, special attention is paid to the training of prospective teachers, who in turn are responsible for shaping the personality of the students, expanding their outlook, and realizing their creative potential.

II. LITERATURE REVIEW

Thinking is the highest form of human mental activity, a process of reflection of objective reality, which has been constantly studied since ancient times as one of the main objects of scientific interest in philosophical, pedagogical, psychological and physiological research. Ancient philosophers Aristotle, Democritus, Socrates, Epicurus were the first to classify the laws and forms of thought, recognizing the idea as a unit of spirit and impression. Philosophers of the modern era F. Bacon, K. Galvetian, J. Lock, D. Yum have defined the

¹ Ph.D., Associate Professor, the chief of the Department of "Pedagogy, Psychology and Languages" Bukhara medical institute

manifestation of thinking as: sensation, perception, imagination and reflection. In classical German philosophy (E. Kant, I. Fixte, F. Schelling, and G. Hegel) reflection appears as a symbol of the subject's independence. German philosophers of the eighteenth century drew attention to the emergence of thought as a distinctive form of labor and social practice. It should be noted that in philosophical research, thinking comes first of all as a social and historical process that realizes one's cognitive abilities. In the history of Western psychology, associative, bisexual, geshtatpsixology and cognitive dimensions of thinking are recognized as the main conceptual approach. Representatives of associative psychology (D. Hartley, J. Priestley, I. Ten, G. Ebbinguz, V. Wundt) view thinking as a process by which past relationships and associative interactions of existing sensory experience are neglected by the state of creative synthesis of knowledge. They do not go beyond the subjective world and the world of ideas as the primary and only object of knowledge. In the history of psychology, the experimental study of thinking was tried by representatives of the Würzburg School (A. Culpe, A. Mayer, N. Ach, K. Boulder, K. Taylor). Contrary to associative theory, they have shown the orderly nature of thinking and demonstrated the crucial role of thinking in the expression of human identity through the process of thinking. Also, representatives of behaviorism, gestalt-psychology and psychoanalysis (B. Skinner, A. Bandura, Z. Freud, A.K. Jung) based their beliefs on the study of various phenomena of thinking as a phenomenon. In conclusion, psychology can be divided into several types (visual action, visual, practical, theoretical, voluntary, abstract, creative) based on the level of generalization of reality, the nature of the problem-solving tool, the novelty of the situation for the person, the degree of activity of the individual. Since the process of developing professional thinking has been selected as the object of our research, we need to get acquainted with modern interpretations of professional thinking.

While Y. Kornilov views professional thinking as a manifestation of human thinking in the course of professional activities, D. Kavtaradze defines competence as a gifted person with the skills to solve practical professional tasks. O. Tikhomirov combines various areas of heuristic thinking aimed at solving professional creative tasks, and Y. Kulyutkin describes the process of high professional development of creative thinking. According to M. Kashapov, professional thinking is a high-level process of finding, learning, and eliminating difficulties that arise in professional activities. Clearly, the results of the literature review suggest that different interpretations of the notion of “professional thinking” do not have the same exact view on its structure and components. Development of professional thinking as a key component of the process of professional development allows a person to succeed successfully. The main role in the development of professional thinking is in the educational process in higher education institutions, which is the basis for the future professional development.

Some aspects of the purposeful development of professional skills of future teachers in higher education institutions Jalilova, E. Osipova, N. Stepanova, B. Lomov, N. Learned in Kuzmin's research. These researchers are expected to develop the professional thinking of future teachers, to develop logical culture of thinking, to apply pedagogical and psychological theories, categories, principles and laws in specific pedagogical situations, to develop pedagogical intuition, to master the basics of dialectical thinking and scientific reflection skills, the acquisition of communication skills and scientific thinking skills in a narrow specialty learned in connection with the hanging of interest. Thus, the notion of “professional thinking” does not have a generally accepted definition in science, but appears as a form of thinking that determines the level of maturity of an expert in the course of a particular profession. In the Republic there are various scientific researches on different ethnopsychological qualities, abilities of teaching profession, ways of achievement of skills, interpersonal communication. In the

process of professional thinking, a person has his or her own specialization, opinions, ideas, ideas and assumptions that are expressed in the mind in the form of concepts, judgments, and conclusions. In social life, in the learning process, interpersonal communication, communication, and relationships are also manifested through reflection. In turn, the formation of a future teacher's professional thinking culture requires specific didactic mechanisms, systematic organization of the pedagogical process, and special pedagogical impact and effective management.

III. DISCUSSION

The structure and peculiarities of the culture of professional thinking depicts as a theoretical basis for the identification of didactic mechanisms for the formation of a culture of professional thinking in the course of professional education. The following conditions are defined as didactic mechanisms:

- Introduction of the concept of a culture of professional thinking into the educational process and clarification of its pedagogical purpose;

- Inclusion of problem-seeking methods of education, model of pedagogical situations, possible difficulties and prediction of their elimination in the structure of training sessions as means of activation of professional thinking;

- Organization and development of educational process on the basis of subject-to-subject relations.

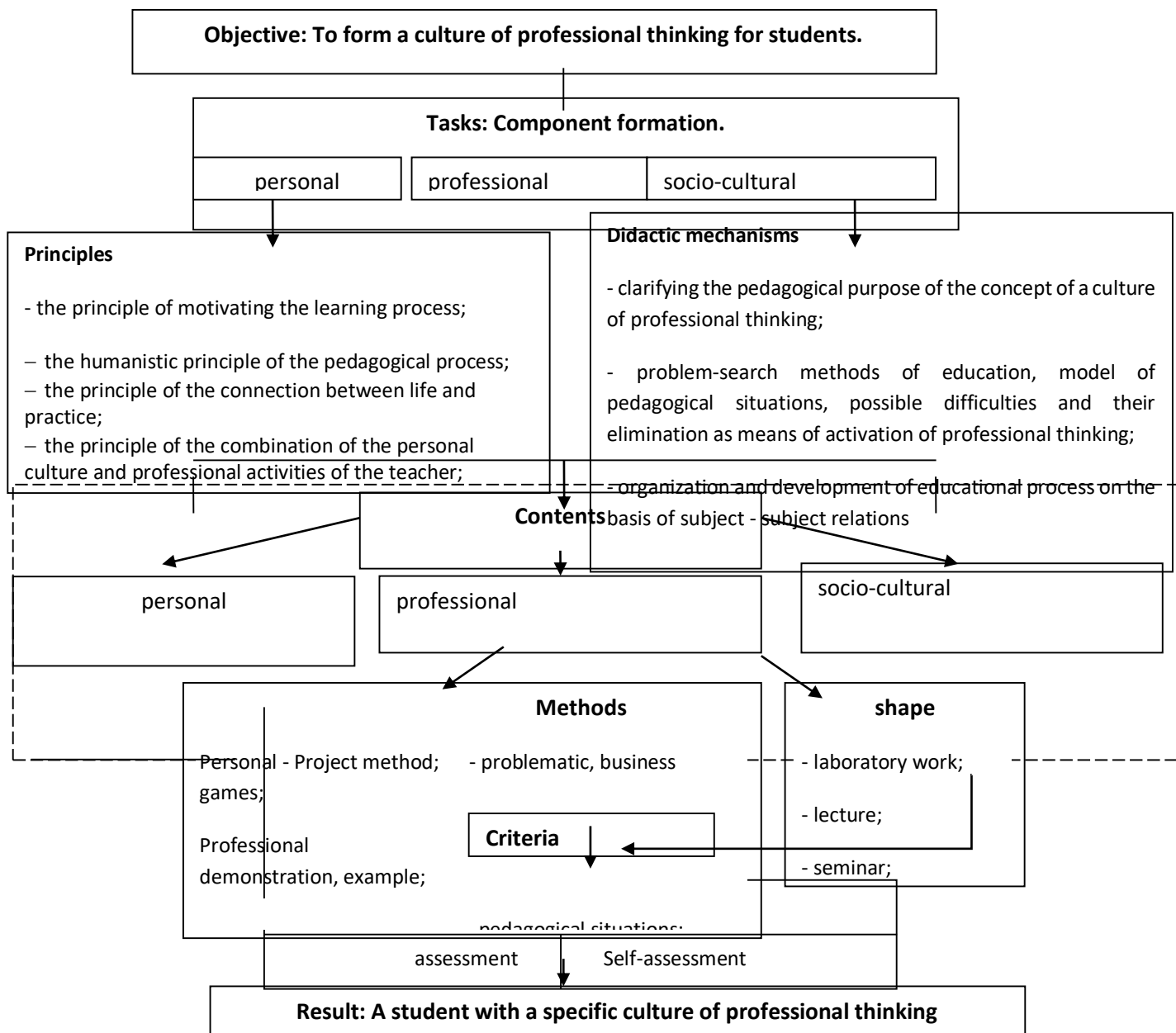
To form a culture of professional thinking on the basis of subject - subjective relationships:

- To rely on students' abilities, opportunities, and aspirations as a guiding force in building a culture of professional thinking;

- Collaboration with vocational training teachers, colleagues (group students);

- Creating a culture of professional thinking is necessary to establish students' independent work.

The purposeful formation of the culture of professional thinking is the result of the thought process in the educational process, and it has encouraged us to develop a model for the formation of a culture of professional thinking in medical school students. The didactic model of building a culture of professional thinking (1-2 schemes) is based on a systematic approach that requires the choice of tools to implement it. The model of the formation of the culture of professional thinking of students enables the formation of personal, professional, social and cultural components and includes purposeful tasks, objectives, principles of the organization of student and pedagogical activity.



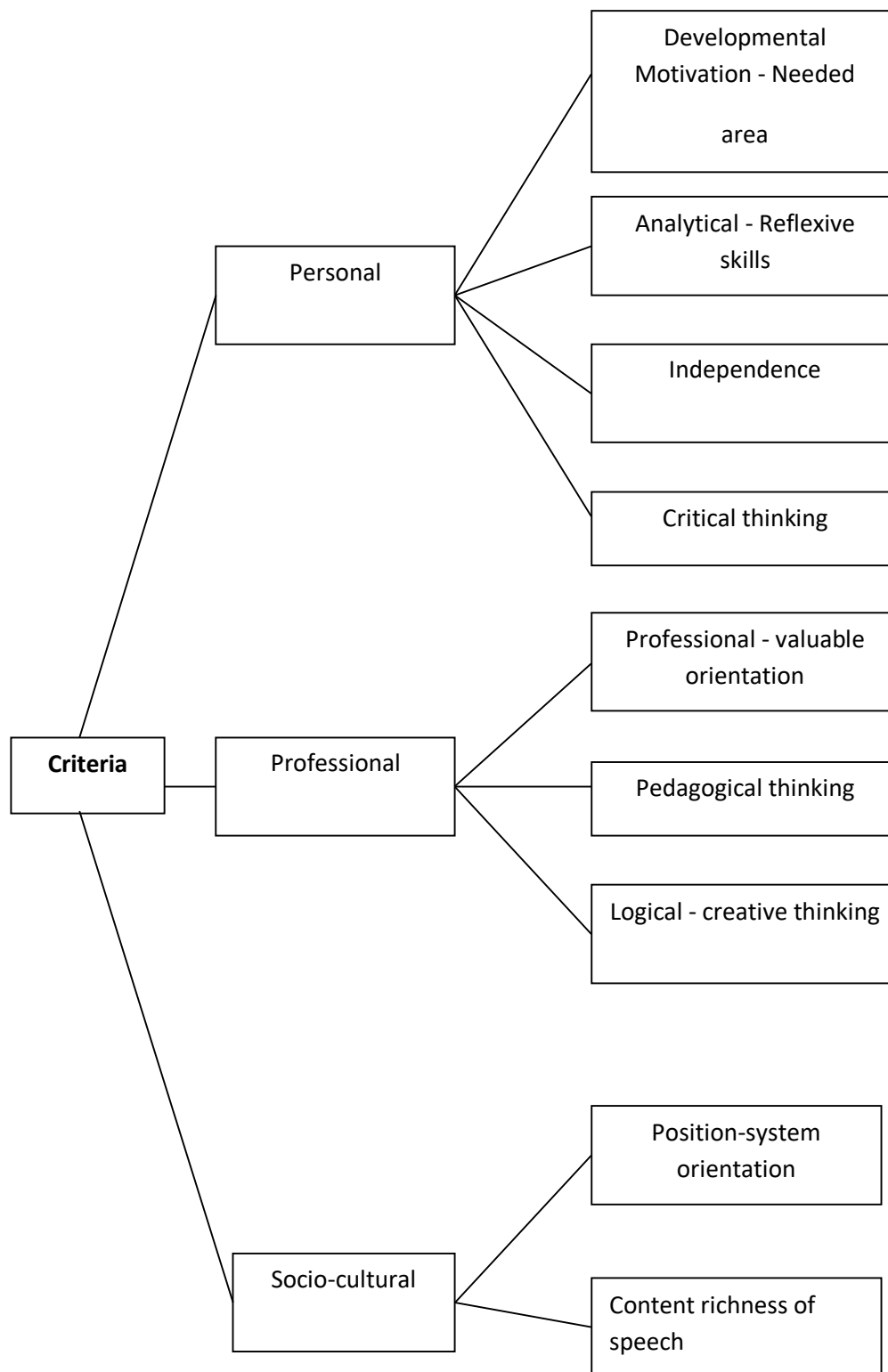


Figure 1: Criteria for the formation of a culture of professional thinking.

The literature review shows that the process of forming a culture of professional thinking must be based on the principle of motivation of the educational process for the organization of activities between teachers and students, the principle of humanistic orientation of the pedagogical process, the principle of interrelation with personal practice and professionalism. The principle of motivating the learning process involves the formation of purposeful

motivation for students to understand the solution of professional tasks. The principle of the humanistic orientation of the pedagogical process reflects the fact that future teachers have formed a level of harmony of society and individual goals, the level of understanding of the importance of human values in the modern world. The principle of the connection between life and practice in building a culture of professional thinking reflects the meaning of the process for future teachers to understand and participate in the changes in the context of modernization of the educational process. The principle of the combination of the personal culture and professional activities of the teacher refers to the system of communication between the teacher's pedagogical activity and his / her personal culture based on high professionalism. The professional qualities of the future teacher are: pedagogical orientation, pedagogical thinking, pedagogical reflection, and the formation of a culture of pedagogical thinking based on the combination of pedagogical control with the qualities of the teacher's personal culture: education, citizenship, humanism, high morality, benevolence and sincerity. The principle of professional orientation will be aimed at forming the personal interest of the future teacher in the content of pedagogical activity and personal motivation for its implementation. It is important to note that pedagogical communication between teachers, specialists and future teachers is also important in the implementation of these principles. Communication is the process of interaction between subjects, during which the information is exchanged, communication is developed and developed. Collaboration is organized and implemented through dialogue. At the same time, new relationships and relationships are formed between people. Consequently, communication and activities are closely intertwined. It should be noted that the educational potential of communication is largely determined by the personal qualities of the teacher. Properly chosen pedagogical communication style, consistent with the unique individuality of the teacher, helps solve the following tasks:

First, the pedagogical effect is the same as that of the educator, the process of interacting with the audience simplifies itself, which is pleasing to the teacher himself;

Secondly, the process of interacting with students is much simpler;

Thirdly, the effectiveness of all the most important tasks of pedagogical communication is enhanced, with all these being at the positive foundation of the emotional calm of the teacher at all stages of communication.

Methods of forming individual communication style in students include the following steps:

1. To learn the true personal characteristics of the individual method of student communication and to understand them. Independent analysis of students is carried out on the basis of comprehensive descriptions and observations by teachers. For this purpose, students write essays on "How do I interact with other people?"

2. Work to identify and address shortcomings in personal communication: Overcoming shyness, and negative communication styles.

3. Tasks for developing an emotionally friendly way for a teacher to compare them with self-monitoring data.

4. Work in acquiring the components of pedagogical communication based on their individual style of communication (in special sessions).

5. Work on finding a holistic case of pedagogical communication in accordance with their own communication style and refining the communication style (in special sessions).

6. The real pedagogical activity is to communicate with students on an individual basis, to reinforce it (in the course of pedagogical practice and internship).

Teachers who are just starting out at medical colleges should work hard to develop individual communication skills.

Due to the importance of communication in the organization of educational impact, there are special requirements for the culture of pedagogical communication, the sympathy of the tutor, and it is manifested as professional thinking. The educator should be able to communicate with people during a team, group and individual work, be able to organize and lead them with a specific purpose for students. It is possible to highlight the following criteria for professional pedagogical engagement with young teachers: the need for regular communication with students in various fields, the expression of emotional peace at all stages of communication, the skills and abilities to communicate.

In the process of professional thinking, a person has his or her own specialization, opinions, ideas, ideas and assumptions that are expressed in the mind in the form of concepts, judgments, and conclusions. In social life, in the learning process, interpersonal communication, communication, and relationships are also manifested through reflection. Analysis and generalization of the pedagogical, pedagogical and psychological and methodological literature on the research topic made it possible for our special research to identify the structure, meaning and logical character of the development of professional thinking at different stages of medical education. The study of the emergence of the professional thinking of future teachers in the learning process was done using the "cross-section" method. That is, we came to the appropriate conclusion by mutually distinguishing between students' level of thinking at different stages of teaching. The second course of the first course, the second course of the third course and the second course of the 6th year were selected as the stages. In the course of the research we have developed and implemented a comprehensive psychodiagnostic program, which includes a set of relevant methodologies, aimed at developing the professional thinking of future professionals. The study of the peculiarities of students' professional thinking in medical education at various stages of education showed that students from 1 to 6 courses had increased levels of thinking, communication, association, and increased speed of thinking. In addition, negative indicators of transition from one method to another have declined, and positive changes have been made in such features as verbal activity, analysis, purposefulness, understanding of the figurative meaning of the concepts, fluency and logic of the speech process. The main purpose of the Instrumental Block is to demonstrate the skills of working with texts as well as verbal creativity in future teachers. The key to this process is the analysis, separation and reflection of the main and secondary ideas in the texts that cover the content of the information. Students will also be able to effectively interpret lectures, work independently with scientific literature, prepare articles, abstracts, prepare reports and present them. The purpose of the final reflexive block is to increase the level of reflexion in students. The duration of the Development Program was 12 weeks (2 sessions per week). The training sessions focused on the development of reflexivity as a cognitive feature of the individual, using various psycho-technical exercises and reflexive tasks. These exercises helped to develop features such as relaxation, concentration, visualization, and self-confidence. As a result of the collective discussion the organizational, meaning-forming, motivational, correction and communicative functions of the reflexes in the pedagogical process were identified. Each of our units, our structural unit, has their own thematic lessons, which include lectures, debates, problem questions, analysis materials, collective discussion of famous people, intellectual attacks, analysis of pedagogical situations, intellectual games, heuristic conversations, psycho-gymnastic as well as psycho-technical and reflexive exercises. The results obtained from the application of the "development program" help

students in the experimental group to develop professional thinking: reflexive thinking ($t = 3, 24; p < 0.01$), verbal creativity ($t = 3, 45; p < 0.01$), showed a significant change in key indicators such as metallurgical awareness ($t = 4.18; p < 0.001$). The experimental group also showed an increase in all four subtests as well as R. Amthuse's intellectual structure memory test scores (Table 1).

Table 1: Difference of the indicators of the structure of intellect at the beginning and end of the experiment.

Subtests	(M±σ)		t
	till experience	After experience	
Continue the words	11,5±2,7	12,31 ± 2,24	2,801
Excessive word output	11,27 ± 1,97	11,89 ± 1,90	2,261
Analogies	9,27 ± 3,12	11,08 ± 1,62	3,713
Summarize	6,58 ± 4,0	8,77 ± 2,66	4,12
Arithmetic operations	7,31 ± 3,37	7,62 ± 2,58	0,915
Numerical rows	8,35 ± 3,86	9,15 ± 2,46	1,98
Imagining existence	10,85 ± 3,02	11,39 ± 2,06	1,613
Generalization of existence	7,65 ± 2,76	8,31 ± 2,07	1,42
Memory	11,19 ± 3,5	12,69 ± 2,38	3,706

IV. CONCLUSION

In summary, our research on the development of professional thinking of medical pedagogical students based on the "Development Program" offered by medical educators was based on the peculiarities of personal professional thinking, which formed verbal creativity through logical thinking. There has been an increase in reflective reflexivity, and the acquired knowledge, skills and qualifications have been strengthened. Human thinking is always personal and individual, with a purpose and general knowledge of the subjective relationships and relationships in the surrounding world, predicting the subject's creative, creative activity, prediction of events and events, and new ideas, visions, hypotheses and creating theories. Professional thinking, in turn, is based on the intellectual and creative abilities of the future teacher, his / her professional aspirations to maturity, the sense of his / her own existence, the need for the development of the motherland, the interests of society the development of society.

REFERENCES

1. Belyaeva E. V. Management of the development of the culture of professional thinking of students in the process of educational research activity / E.V. Belyaeva // Actual issues of teaching mathematics and computer science: an interuniversity collection of scientific papers. Issue 2. - Ulyanovsk: UIGPU, 2004. - P. 22-25.
2. Isaev I.F. Professional and pedagogical culture of a teacher: Textbook for universities / I.F. Isaev. - M.:

- Academy, 2002.
3. Karimov B. H., Kalandarov A. D. *Philosophy of Mind and Spirituality*. — Bukhara: Durdona, -624 p.
 4. Kornilov Yu.K. On the origin and development of the thought process in pedagogical activity / Yu.K. Kornilov // *Psychology of pedagogical thinking: theory and practice*. - M.: IP RAS, 1998. - P. 3-8.
 5. Kuzmin H.H. The unity of theory and practice as a general principle of professional training of a future teacher /H.H. Kuzmin // *Professional and pedagogical skills and ways of their formation*. - Voronezh: VGPI, 1985 .- - P. 7-20.
 6. Lomov B.F. *Questions of general, educational and engineering psychology* / B. F. Lomov. - M.: Pedagogy, 1991 .-- 296 p.
 7. *Thinking of a teacher: Personal mechanisms and conceptual apparatus* / Ed. Yu. N. Kulyutkina, G.S. Sukhobskaya. M.: Pedagogy, 1990.104 p.
 8. Ochilov M., Ochilova N. "Teacher ethics". - T.: Teacher, 1997, Page 6.
 9. Rubinstein S.L. *Основы общей psychology* / S.L. Rubinstein; W 2 t.— T. 2. - M.: Pedagogy, 1989. - 328 pp.
 10. Teplov, B.M. *Practical Thinking* / B.M. Heat. - Moscow // *Psychology of thinking: anthology* / - 2nd edition, revised and supplemented. - Moscow: AST: Astrel, 2008. - P.224.
 11. *A reader in general psychology. Psychology of Thinking* / Ed. Yu.B. Hippenreiter, V.V. Petukhova. - M.: Publishing House of Moscow State University, 1981. - 240 p.
 12. Alex Moore. *Teaching and Learning: Pedagogy, Curriculum and Culture*. – Routledge, USA, 2012.
 13. Skinner B.F. The origins of cognitive thought / B.F.Skinner // *American Psychologist*. – 1989, №44. – P.13-18.
 14. Kurbanova G.N. Development of professional thinking through communicative skills among students of medical universities. *International Scientific Journal Theoretical Applied Science*. Impact Factor. 2409-0085(online) Published: 30.11.2019. –P550-553
 15. Kurbanova G.N. The role of ancestral heritage in the development of professional thinking of future professionals. *International Scientific Journal Theoretical Applied Science*. Impact Factor. 2409-0085(online) Published: 30.01.2020. –P447-450