

**PEHPP 2019****Pedagogical Education: History, Present Time, Perspectives****STRUCTURAL AND CONTENT CHARACTERISTIC OF  
DIDACTIC COMPETENCY OF A MODERN EDUCATOR**

S. N. Gorycheva (a), O. B. Dautova (b), E. Yu. Ignateva (c)\*

\*Corresponding author

(a) Yaroslav-the-Wise Novgorod State University, Veliky Novgorod, Russia, sngppf@mail.ru

(b) St-Petersburg Academy of Post Graduate Pedagogical Education, Sankt-Petersburg, Russia, anninskaja@mail.ru

(c) Yaroslav-the-Wise Novgorod State University, Veliky Novgorod, Russia, St-Petersburg Academy of In-Service Pedagogical Education, Sankt-Petersburg, Russia, iey1@yandex.ru

***Abstract***

The article presents a structural and meaningful characteristic of the teacher's didactic competence, due to the changes in the requirements for the modern learning process. The work analyzes the views of researchers on this problem and the situation with the didactic competence of the teacher in the educational practice. It is concluded that there is a need in pedagogical science and practice to rethink the content of the didactic competence of the teacher in accordance with the challenges of the time to the education system. The results of the study of the nature and structural-contentious content of the teacher's didactic competence, aspects in its consideration, levels of manifestation are established, a relationship with the didactic culture of the teacher are presented. It is justified that didactic culture includes the choice of philosophy, strategy and tactics of learning and the teaching activity itself. Didactic competence is its functional characteristic, reflecting the technological aspect of the teacher's professional life, its ability to make specific didactic decisions. The profile of the didactic competence of the modern teacher has been defined and the description of its five blocks (value-meaning, knowledgeable, operational, personal, reflexive) has been given. The pedagogical strategy of the modern teacher, oriented to teaching as to communication, reflection, understanding, design is justified. The implementation of this strategy involves the construction of educational and educational situations in the logic of the model "Pyramid of doctrine as a system 6 C" for the development of the student as a subject of teaching.

2357-1330 © 2020 Published by European Publisher.

**Keywords:** Didactic competence of the teacher, didactic culture of the teacher, content of the didactic competence of the teacher.

## 1. Introduction

With the development of society, educational paradigms are changing, the concept of the quality of education is changing. But the teacher, tutor despite the variety of pedagogical concepts and technological innovations, was and remains a leading figure in the educational process. The quality of education still depends on the quality of teaching, because the quality of the school system is determined by the quality of its teachers (Barber & Murshed, 2008).

Didactic component of the teacher professional activity (teacher abilities, didactic culture, didactic competence) has repeatedly become the subject of pedagogical research. Didactic competence was considered in the works of scientists as a quality or property of personality; its readiness for action; a system of knowledge, skills and competencies; the ability to make informed and unmistakable didactic decisions, to find the shortest way to solve the didactic problem (Hramova, 2010; Sergeeva et al., 2019; Tarhan, 2009; Tyrina, 2012). Didactic competence is incorporated into the structure of a more general pedagogical, as opposed to methodical, reflects the holistic view of the teacher's learning process, the nature of teaching activities, its didactic capabilities and the conditions of enhancement efficiency of his work (Serikov, 2008).

Meanwhile, the results of the TALIS-2013 study can conclude that the development of didactic competence of teachers is carried out partially, one component is detached from another (Russian pedagogics..., 2015). The development of teachers in Russia is most often related to the subject knowledge and teaching methods, new pedagogical and information technologies; somewhat less frequently in the field of class evaluation and management; even less often, in the methods of individual training and training to different types of key competencies. Thus, Russian teachers have not mastered the leading didactic ideas - the integrity of learning and lesson as its private manifestation in the design and implementation of the active nature of the training, actualizing the subject position of the student, and the idea of building a non-linear learning process.

Updating education, transforming it into new educational practices, such as flexible classrooms, mixed or personalized learning (Bingham, 2017; Inoue-Smith, 2018; Lavi, 2018), strengthening the role of separate work (Yefremtseva, Batyrshina, & Sagilyan, 2019), the role of a teacher in changing the educational organization itself (Damkuvienė, Valuckienė, & Balciunas, 2019), is directly related to the personality of the modern teacher, his values, meanings, attitudes, life practices, professional pedagogical culture and activities, including his didactic competence.

## 2. Problem Statement

Attention to teachers in the increasingly important role of learning and education in the information society not only does not lose importance, but increases, despite the increased emphasis on the technological component of learning and digitalization education. Indeed, the emphasis in the functions of the teacher is changing, his role as a carrier of information is decreasing. His role as a consultant, mentor, moderator, manager, planner and designer of educational programs and training materials, as a leader influencing the organization as a whole, is strengthened.

The dynamics of the development of modern society requires a change in the process of learning and therefore the development of the didactic competence of the teacher, who is able to organize the process of learning that meets the challenges of time.

The article proposes an interpretation of the content of didactic competence, obtained on the basis of an analysis of modern requirements for the quality of teaching.

### **3. Research Questions**

**3.1.** What is the nature and what is the structural and meaningful content of the didactic competence of the teacher? What is the connection with the didactic culture of the teacher?

**3.2.** By means of what pedagogical strategies is the didactic competence of the teacher meeting the level of modern requirements to educational process realized?

**3.3.** At what levels can the didactic competence of the teacher be manifested?

### **4. Purpose of the Study**

The objectives of the study were to define the nature, structure and features of the didactic competence of the modern teacher; finding pedagogical strategies for implementing didactic competence in modern education; determining the levels of development of the didactic competence of the teacher.

The results of the study can be used in the training of future teachers at all levels of higher education (bachelor's, master's, postgraduate studies), as well as in the system of retraining and upgrading teachers and professors of universities.

### **5. Research Methods**

**5.1.** A group of survey methods (profile, interviews, focus groups) was used to model the content of didactic competence. The surveys were attended by executives-students of advanced training courses-98 people, teachers of higher education-153 people in Minsk, Petrozavodsk, St. Petersburg, school teachers of St. Petersburg-500 people.

**5.2.** Structural and functional analysis allowed to correlate the requests from students, the needs of the teachers themselves and the educational request of the society to the didactic competence of the modern teacher and determine the content of its components.

**5.3.** Observation was conducted for five years on special matrix of observations of school lesson and classes at the university. The observation was aimed at teaching, the activity of the teacher and the actual teaching, the activities of the students. Identified pedagogical strategies are defined as a result of observation of 200 lessons in schools in St. Petersburg and analysis of the results of university teachers' work on the development of work programs at refresher courses (at the Universities of Veliky Novgorod and St. Petersburg).

## 6. Findings

### 6.1. Nature and structural-content filling of the didactic competence of the teacher. Relationship with didactic culture

By the didactic competence of the teacher we understand the integral characteristic that determines his ability to solve didactic problems in the educational process using knowledge, professional and life experience, inclinations and values, the main of which is the value of the free development of the student's personality. Didactic competence is manifested in such creative integration of the didactic components of the pedagogical process (purpose, methods, technologies, ways of learning, educational content, educational results), which will ensure the creation of the most optimal and effective didactic system, a psychologically safe and developing educational environment.

Didactic competence has a subjective aspect (competence as a characteristic of a particular subject), behavioral aspect (competence is demonstrated in the appropriate type of activity), value aspect (competent specialist has a high level of motivation and a deep belief about the value of his profession), a dynamic aspect (competence is the inherent internal logic of development, without which it very quickly transforms into an incompetence).

The new socio-educational situation determines changes in the teacher's philosophy, strategy and tactics of the learning process which will ensure the development of didactic culture and its functional component - didactic competence. The formula of the teacher's didactic culture can be expressed as follows: "The philosophy of the teacher + the pedagogical strategy + the pedagogical tactics + the creativity."

Changing the philosophy of a modern teacher/tutor is connected with the implementation of the principle of integral humanism which defines the leading role of the learner at all stages of life through a new understanding of pedagogical categories:

- education is the process of free self-determination of a man as a multivariate simulation of human existence, providing a variety of options for self-determination, the choice of "one's self", that requires solving the following educational problems: promoting the learner in the acquisition of values, meanings, personal way of existence, stimulating the activity of the individual in the context of the growth of education into self-education;
- -teaching is a means of self-exercise that realizes the nature of the individual, when freedom is manifested by both the teacher and the learner and their activities are creative; the conditions for achieving a personal way of being in the process of teaching is the expansion of a person's self-consciousness and his construction of constructive interpersonal interaction on the basis of symmetrical communication, allowing to enter the personal communication and exchange of meanings.

The content of the teacher's didactic competence forms a profile that includes 5 blocks:

**A. Value-meaning component** (support and assistance of the student, success of his educational activities and educational learning as a value).

**B. The knowledge component includes owning the following key knowledge:**

- forms of educational process organization and organizational forms of students activity in the educational environment of the educational organization. Non-linear forms of educational process organization;
- educational and educational activities (educational activities, teaching, educational/teaching situation, educational task, educational environment, education content, motivation, educational design, reflection);
- educational activities, individual curriculum, individual educational program, individual educational route;
- teacher-tutor and his new roles (support, assistance, counseling, moderation, facilitation, coaching, types of counseling);
- -integration of educational and informative and other activities: directions, programs, results;
- project and research activities: species, stages, age accounting;
- communication, interaction, joint activities, community, educational communication, moderation, group dynamics in the classroom, conflict;
- new educational results: evaluation and diagnosis.

**C. Operational-active component includes two elements:**

The teacher's mastery of methods of organizing various activities (educational, project, game, research, self-education, etc.); ways to design an educational environment, information and communication resources, support and assistance of educational and informative activities; strategies for communication organization (to conduct a discussion, a debate, to moderate), methods of involving students in joint activities, adoption of rules of how to conduct in it, management of group dynamics in the classroom.

Algorithm (technology) of effective activity (technology of organizing independent activities of schoolchildren, project activities, educational and research activities, educational activities, group interaction, counseling) etc.

**D. The personal component** is the personality traits (empathy, mobility, activity, decision-making and responsibility for choices, hard work, creativity, critical thinking, etc.) and professional experience (organization experience of different forms and activities of students).

**E. Reflexive component** - experience of self-assessment and experience of reflection of didactic competence and didactic culture.

The specificity of the profile of the didactic competence contributes to the possibility of its diagnosis and identification of directions for self-development of the teacher.

**6.2. Educational strategies to implement the teacher's didactic competence, meeting the level of modern requirements for the educational process**

The pedagogical strategy of the modern teacher is based on a modern understanding of the student's educational and informative activities and manifests itself in the orientation to the teaching as understanding, communication, reflection, design:

- teaching as *communication* (the student's access to extended communication with other students, participants in educational relationships; it is a dialogue, polylog, personal communication, including event communication / "live together, understanding each other");

- teaching as *reflection* (the student's access through mastery of reflexive practices to the realization of his subjective position, followed by the exit to the reflexive way of life of a modern man, which goes back to self-education and self-improvement/"live meaningfully");
- teaching as *understanding* (the student's access through mastering of intellectual skills, meta-subject universal learning activities on personal inclusion in educational content, on personal-meaningful knowledge by immersion in educational material through experiences and involvement with them);
- on teaching as *design* (from designing ways of activity to designing your individual educational trajectory based on formal, informal and in-formal education).

Implementation of the identified pedagogical strategies implies the knowledge of the modern teacher pedagogical tactics, which is to design educational and learning situations for the development of the student as a subject of teaching. This tactic can be based on the model of the subject's development system, presented as the "Pyramid of doctrine as a system of 6 elements": 1 - Information and educational environment; 2 - Content, including meta-subject; 3 - Ways to learn and work: universal learning activity; 4 - Subjects of interaction - cooperation; 5 - Subject - a student, occupying the subject position.

Of course, as any model, it is conditional, however, it identifies critical points where teachers today most often make mistakes, it allows to explain the mechanism of personal development of the student in educational activities,

The ideal is a pyramid in which all direct and feedback links between components in a holistic system are established. The subject of the teachings is in the center of the pyramid, as long as it develops, direct and feedback links are built: S-1 is the subject of self-organization; S-2 is the subject of cognition and the subject of assimilation; S-3 is the subject of creative activity; S-4 is the subject of interaction.

Information and educational environment as a set of diverse educational tools and resources is the first point at the base of the pyramid. In the case of direct communication the teacher constructs the environment, with the feedback the learner himself looks for and expands resources of the environment, independently organizing it, developing competence in the regulation of its activities. The second point of the foundation of the pyramid of teaching is the object of knowledge, i.e. the content of education as a reflection of the worlds of nature, culture, man. Direct communication reflects the option of information (source of knowledge - teacher, textbook, Internet). But such educational content is not yet personal and meaningful for the learner. It becomes so when building feedback and the emergence of a sustainable cognitive interest and initiative in the search for additional material. The ways of cognition and activity, acquired and improved by learners during the teaching process, symbolizes the third point of the foundation of the pyramid. Possession of the learning methods of the activity at the reproductive level (reproduction) is formed as a result of direct communication. Feedback occurs when it moves to a creative level. The fourth point of the foundation of the pyramid are the subjects of interaction (teachers, other students). Direct communication involves the learner in educational communication while adopting educational content, with the feedback it initiates the process of interaction and demonstrates communication skills.

Thus, this model focuses on the main points - tasks in which the didactic competence of the teacher is manifested. The teacher's didactic profile forms a set of didactic tasks:

- implementation of pedagogical diagnostics;
- selection of the content of the educational material;
- designing an information and education environment;
- developing the motivation of the student;
- ensuring that the student is included in the curriculum;
- -designing and organizing the understanding procedure;
- -designing and organizing communications;
- -organization of the assessment activities of the student;
- -organizing the student's reflexive activities;
- -providing conditions for the implementation of individualized educational activities of the student, access to personalization of training.

Didactic culture includes the choice of philosophy, strategy and teaching tactics and the learning activity itself. By didactic culture of the modern teacher we will understand the integral characteristic of the process of knowledge of the teacher, which is determined by his need for constant renewal of basic knowledge, knowledge of modern ways of cognition, ability to productive professional and educational communication and transform new knowledge into the content of the training of the modern student.

Didactic competence represents a narrower concept than didactic culture, requiring teachers to already have technological, specific didactic solutions to transform the content of education into content training and the specific activities of the student.

### **6.3. Levels of manifestation of the didactic competence of the teacher**

In our opinion, the most interesting is the classification of levels of didactic competence, based on the approach proposed by the team of authors (Pevzner et al., 2002):

- reproductive level is manifested in such characteristics of the organization of the learning process, such as stereotyping activities (clear adherence to samples, a limited set of methods and forms), use of ready-made learning technologies, positioning themselves only in the context of the subject being taught, low motivation for change. The normative-adaptive, invariable, well-structured extrapersonal nature of the teacher's didactic competence, which does not allow the teacher to guarantee a high level of quality of teaching, is clearly manifested here;
- heuristic level is characterized by variability and efficiency of technologies, methods and techniques of learning, rejection of stereotypes in activities, critical rethinking of their experience in order to improve it, using creative thinking techniques. The development of the teacher's didactic competence up to this level is a testament to its desire to meet the requirements of the time;
- the creative level is distinguished by the subjectivity of the teacher in the organization of the didactic process. The teacher is able to systematically simulate the learning process, using knowledge of modern theories and technologies, to solve pedagogical problems effectively. It is ready to engage in innovation, adapting flexibly to change, independently designing and

modifying his own learning technologies. A teacher with this level of didactic competence demonstrates an individual style of activity and guarantees a high level of quality of education.

## 7. Conclusion

Society raises the requirements for teaching in the 21st century and necessitates a high level of didactic competence for educators.

The important question is the understanding of the difference between didactic culture and didactic competence and their correlation. The formula of the pedagogy culture of the teacher can be expressed as follows: "The philosophy of the teacher + the pedagogical strategy + the pedagogical tactics + the creativity."

In our opinion, the functional component of didactic culture is didactic competence. Structurally meaningful content of didactic competence, obtained as a result of analysis of the requests of various participants in the educational process (students, teachers, heads of educational organizations), allowed to determine a combination of didactic tasks that form the didactic profile of the teacher. Thus, we will understand under didactic competence the integral ability of the teacher to solve the class of didactic problems.

Levels of didactic competence (reproductive, heuristic, creative) are manifested through very specific, observable characteristics and therefore can be diagnosed. Knowledge and acceptance of diagnostic results by the teacher (colleagues, leaders, scientific and educational community) and self-diagnosis becomes a key source in determining the directions of self-improvement, self-development of the teacher.

The study revealed a clear trend of increasing the role of didactic competence of the teacher in modern education.

## Acknowledgments

The article was prepared as part of the RSF grant 18-18-00047 "Research on the state of information flows in the Russian education system and the possibilities of optimizing them."

## References

- Barber, M., & Murshed, M. (2008). How to achieve a stable high quality of education in school. Lessons from analyzing the world's best school systems. *Voprosy obrazovaniya*, 3. Retrieved from: [https://cyberleninka.ru/article/n/kak-dobitsya-stabilnogo-vysokogo-kachestva-obucheniya-v-shkolah-uroki-analiza-luchshih-sistem-shkolnogo-obrazovaniya-mira\[in Rus.\]](https://cyberleninka.ru/article/n/kak-dobitsya-stabilnogo-vysokogo-kachestva-obucheniya-v-shkolah-uroki-analiza-luchshih-sistem-shkolnogo-obrazovaniya-mira[in Rus.]).
- Bingham, A. J. (2017). Personalized learning in high technology charter schools. *Journal of Educational Change*, 18(4), 521–549.
- Damkuvienė, M., Valuckienė, J., & Balciunas, S. (2019). *Teacher leadership for organizational change. Management-journal of contemporary management issues*, 24, 37-53, <https://doi.org/10.30924/mjcmi.24.si.3>
- Hramova, E. V. (2010). On the development of didactic competence of the University teacher. *Vestnik Novgorodskogo gosudarstvennogo universiteta*, 58, 51-54. [in Rus.].
- Inoue-Smith, Yu. (2018). Designing And Implementing Mixed-Mode (Blended) Learning For College Students: A Case Study. *The European Proceedings of Social & Behavioural Sciences*, 78, 711-719. <https://dx.doi.org/10.15405/epsbs.2019.02.02.78>



- Lavi, U. (2018). Introducing a flexible classroom into a schoolwork study project. *The European Proceedings of Social & Behavioural Sciences*, 63, 276-286. <https://doi.org/10.15405/epsbs.2019.06.35>
- Pevzner, M. N., Zajchenko, O. M., Buketov, V. O. Gorycheva, S. N., Petrov, A. V., & SHirin, A. G. (2002). In M.N. Pevznera, O.M. Zajchenko (Ed.). *Scientific and methodological support of the school personality: pedagogical consulting and supervision*. Veliky Novgorod: Novsu, Institut obrazovatel'nogo marketinga i kadrovyyh resursov. [in Rus.].
- Russian pedagogics in the mirror of the international comparative study of the pedagogical corpus (TALIS 2013). (2015). In E. Lenskaja, M. Pinskaja (Ed.). *Nac. issled. un-t "Vysshaya shkola ekonomiki," in-t obrazovaniya. M. : Izd. dom Vysshej shkoly ekonomiki*. [in Rus.].
- Sergeeva, M. G., Zorina, O. A., Petrukhina, N. B., Amkhadova, M. A., Saltovets, M. V., & Matiushenko, M. S. (2019). The Formation of Didactic Competence of A Future Specialist in the Educational Complex Conditions. *International journal of applied exercise physiology*, 8(2.1), 673-679.
- Serikov, V. V. (2008). Training as a kind of pedagogical activity. In V. A. Slastenin, & I. A. Kolesnikova (Ed). M.: Izd. "Akademiya." It's a bit of a "rus."
- Tarhan, L. Z. (2009). *Structural and functional components of didactic competence of future engineers-teachers*. Retrieved from: [http://www.nbu.gov.ua/old\\_jrn/Soc\\_Gum/Pipo/2009\\_22-23/09tlzcf.PDF](http://www.nbu.gov.ua/old_jrn/Soc_Gum/Pipo/2009_22-23/09tlzcf.PDF) [in Rus.].
- Tyrina, M. P. (2012). Didactic competence of the teacher and its development. Retrieved from: <http://izvestia.asu.ru/2012/2-1/peda/TheNewsOfASU-2012-2-1-peda-07.pdf>[in Rus.].
- Yefremtseva, T. N., Batyrshina, A. R., & Sagilyan, E. M. (2019). Work as an important form of formation of self-educational competence of students to humanitarian specialties. *Amazonia in vestiga*, 8(20), 674-682.