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**Professional Culture of the Specialist of the Future**

**INTEGRATION OF THEORETICAL AND PRACTICAL TEACHER  
TRAINING**

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***Abstract***

The subject matter of this research would be the fact that the traditional methods of integration of theoretical and practical teacher training in modern conditions do not improve the quality of school education; the conditions of transformation of school children's and teachers' personalities, of school and society. Statistical and sociological data analysis shows that transformation of teacher-training education is related to deformation of social conscience, curricula and education programs, content of disciplines and teaching practices. All this has negative effect on the quality of teacher training and the quality of school education. New mechanisms of integration of theoretical and practical teacher training are needed. The matrix of integration problems and integration mechanisms obtained during the study made it possible to formulate recommendations: development of integration mechanisms requires, first and foremost: solve the problems related to the elements of the logical structure of integration (these are the resulting problems): lack of correlation between the basic cooperating discipline (e.g. educational psychology, teaching philosophy, development theory, history of educational thought, methods of teaching the subject), defining the objective of integration and a particular integrative result; develop external integration techniques related to autonomous problems: incompatibility of components of the content with certain forms of educational activity, of methods and means of teaching and development, etc.; with systems unfit for the processes of education transformation.

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**Keywords:** Integration mechanisms, pedagogical education, teacher training, theory and practice, university.



## 1. Introduction

Mechanisms of integration of pedagogical education, oriented on improvement of teacher training quality, imply connection (steady correlation) of this education with such spheres as new ideology of development of public relations, new methodology for constructing education in the XXI century, new paradigm for the development of intercultural relations in the world and in each individual (regional) entity, etc. Traditional integration of psychological-pedagogical, methodical training of the future teacher with research, educational, pedagogical and other practice can be considered only on the background of interaction of this education with the mentioned spheres. The complexity of defining the mechanisms is connected with the fact that all these spheres are in the conditions of constant movement, spontaneous (uncontrollable) and controlled transformation.

The transformation of pedagogical education in Russia and the countries of Eastern Europe was influenced by certain historical events. It is known that in 40-ies of the XX century previously established education systems in Eastern European countries (Education in Eastern Europe and the USSR, 2017) were destroyed. These systems mainly based on national traditions. During the Second World War Poland, Bulgaria, Yugoslavia, Albania, Hungary, Romania were occupied by Nazi Germany, and western Ukraine, Estonia, Latvia, Lithuania and part of Finland (Karelia) were included in the USSR. After the end of the Great Patriotic War, with the advent of the socialist camp, the Eastern European countries, or the Warsaw Pact countries, were in the USSR sphere of influence (Krasnozhenova & Kulik, 2017).

Pedagogical education in the universities of the Socialist camp countries was built on the models established in the USSR, but in the Universities of Western Europe – according to the traditional models of Germany, France, England, the USA. Experts note the emergence of new for Eastern European countries factors as ideologization of pedagogical education (in the spirit of socialist and communist ideals), introduction of centralized management, uniformity of curricula and programs (Sokolova, Pytkin, Safanova, & Stroganova, 2017). In pedagogical universities Communist Party organizations, youth politicized organizations similar to Komsomol organization in USSR were created. This increased the confrontation of the West and the East, contributed to formation of a negative image of each other.

## 2. Problem Statement

In the course of the research conducted in the universities of Russia and countries of Eastern Europe, we analyzed the mechanisms of integration of educational theory and educational practice at different levels: the levels of post-secondary education, general higher pedagogical education, undergraduate, Master's degree, pedagogical postgraduate study. The study of such mechanisms considered the experience of integrating theory and practice at the University of Dublin (Ireland) (Galvin, 2017).

Using the technique of compiling a matrix of significant problems (Prigozhin, 2007) we revealed the problems caused by contradictions between:

- the holistic nature of the "subject of development" - a student (a future teacher) - and a powerful structure disintegrated among themselves methodological and substantive essentials of the processes of development and training which has formed over the last years;

- the process of establishment and development of mechanisms of integration of educational theory and practice as the leading regularity of development of the theory and methods of higher professional education and virtually dominating place of disintegration trends in training and development systems;
- large-scale integrative work in the system of university teacher education and lack of adequate effect of integration on the processes of training a new teacher type, i.e. a teacher of the XXI century;
- urgent need for conceptual validation of mechanisms of educational integration as a leading trend of development of modern theory of professional education and insufficient elaboration of its fundamental positions in the system of professional teacher education.

The principal contradiction is the absence of conceptual model of creation and implementation of mechanisms of integration of educational theory and practice under conditions of transformation of teacher education: the model should become an effective means of development of both integration by itself and the integration of educational theory and practice.

The contradictions between the components of pedagogical integration at different levels should be highlighted:

- at the task level: the source problem, shaped within the framework of either basic or co-operative branch of science, with the problems specific to educational practice;
- at the level of elements of logical structure of integration: basic cooperating discipline (Pedagogical Psychology, Theory of Education, History of Pedagogical Thought, Method of Teaching the Subject), defining an integrative purpose, with a specific integrative result;
- at the level of intrastructural integration: - correlation between different concepts, principles, knowledge, skills, competences, etc.;
- at the level of interstructural integration: knowledge and skills, knowledge and the experience of creative educational activity;
- at the level of external integration: components of the content with certain forms of educational activity, methods and means of training and development, etc.

### **3. Research Questions**

The mechanisms of integration of pedagogical theory and practice in the conditions of transformation of higher education should include the following concepts: components of transformation (trainee and trainer, society and university, knowledge and experience, etc.); components of educational integration (knowledge, theory, content of education, educational disciplines, scientific fields); subject of integration (process of integration, its scale, steps, paths, forms, factors, boundaries); typological characteristics (local, regional, interregional, subject, interdisciplinary, global, specific). This approach is conditioned by research conducted both in Russia and abroad (Chapaev, 1998; Gabdulchakov, Kusainov, & Kalimullin, 2016; Barsukov & Panicheva, 2016; Menter, 2015; Hsu, Hamilton, & Wang, 2015; Barnes & Mattson, 2017). However, new factors have emerged in the twenty-first century.

Recent decades have seen active formation of a negative image of Russia in Western countries. The study, conducted by specialists (Education in the countries of Eastern Europe and the USSR, 2017), shows that a positive image of Russia is typical for the CIS and the third world countries, and, to a lesser extent, for Latin America and the Middle East (though with the countries of the Middle East the image of

Russia is much more positive than that of the USA). The negative image of Russia prevails in Western countries (thus, to a lesser extent in the USA, Canada and Great Britain). The countries of Eastern Europe vary significantly in their opinion (in Bulgaria the image of Russia is still relatively positive and in Poland it tends to be negative).

According to sociological surveys conducted in Germany in 2007, the overwhelming majority of the Germans (90%) associate Russia, primarily, with vast territories and, secondarily, with the problem of inequality. The main quality, which characterizes the Russian stereotype among the Germans, is the alcohol abuse. Among the positive characteristics of the Russians, German residents have pointed out hospitality, courage, emotional sensitivity and generosity. The results of the study also showed that the positive aspects of the image of Russia in Germany include economic growth, classical art and classical literature. Interesting scientific results were obtained during the Internet survey conducted in 2006 among Russian and Western European student members of the International Association of students studying public relations (Sokolova, Pylkin, & Safanova, 2017). The survey showed that among the students from Russia, Western and Eastern Europe the image of Russia is very strongly associated with corruption and poverty, and this association is especially common with the students from Eastern Europe, which correlates with the fact that the students of Eastern European universities reckon Russia among the third world countries.

Such stereotypes represent the political, social and cultural background of transformation of teacher education in the world, and significantly influence the formation and development of mechanisms of integration of educational theory and practice: curricula and programs undergo changes, some subjects disappear while other emerge, etc.

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

The study is intended to define effective mechanisms of integration of theory and practice in the structure of pedagogical education in Russia and Eastern Europe.

#### **5. Research Methods**

The methodology of the study was based on the concept of core competence by Hamel and Prahalad (2014), related to the development of management strategies based on a matrix of significant problems. Such methods as sociological survey, questionnaires, methods of comparison and generalization were used in the study. The basis for the survey was the method suggested by Prigozhin (2007). Following the method, a list of problems of creation and implementation of mechanisms of integration of teacher education was compiled. The experts (Russian and foreign specialists involved in teacher education) deleted from the list those problems which they considered as insignificant or repetitive, then consolidated the problems as necessary and singled out the most important problems from the resulting revised list. After filling the "empty chart" using the paired-comparison method, the main problems of creation and implementation of mechanisms of integration of teacher education were determined. Spearman's rank correlation coefficient (Gmurman, 2004) was used in the study. It allowed establishing the relationship between the professional competencies of future teachers and the degree of

integration of theoretical and practical preparation, i.e. the degree of implementation of mechanisms of integration at the undergraduate, magistracy, and postgraduate level.

Thus, the correlation, i.e. the statistical interrelationship of several quantities (quantitative indicators of the most common problems) was established, which can be considered as root, key, resultant, autonomous (according to Prigozhin, 2007) with a permissible accuracy. Here, a change in the values of one or more of these quantities results in systematic change in the values of one or more of other quantities.

## 6. Findings

At present both in Russia and in the countries of Eastern Europe the mechanisms of organizational and administrative character are predominantly functioning. They are different in content, but directly or indirectly activate the emergence and development of mechanisms of integration of educational theory and practice. In 2014-2018 we conducted a study in 7 universities of Russia, Belarus, Poland, Moldova.

By now, two subsystems have formed in the Russian system of higher education: One is of mass higher education, the other is of qualitative (fundamental) professional education. These subsystems have different influence on the development of mechanisms of theory and practice integration: there are different curricula, programs and different goal sets in the universities.

The results of the study were obtained as follows. First in the "heading" and in the "footnote on the right" we inserted the number of the problem, recognized as the most important, then we compared pairwise each problem of horizontal line with each of the vertical one (by the criterion of interinfluence). In other words, comparing each couple of problems, we answered the following questions: which of these two strains or causes the other more? Solving which of the problems will relieve the severeness, make it easier to solve another one?

If a problem from a vertical line causes or aggravates a problem from a horizontal line, then in the cell of their intersection we put an arrow horizontally from left to right and up. And if the relation is inverse, then the arrow is inverted. In case when there is no connection between two problems, we put zero (0). If any of the problems in the list disappeared, we added them without entering the "special empty graph".

Processing the obtained data by experts and consultants allowed to make graphs, reflecting the opinion of each of the experts about the most important problems of technological organization of pedagogical education in a particular university.

After processing of "special empty graphs" filled by each expert, there were four types of problems:

- 1) root – causing or straining other problems;
- 2) key– depending on some problems, but at the same time causing or straining other problems;
- 3) resultant– being result of other problems;
- 4) autonomous – quite significant, but not related to others (see Table 01).

With the "+" we marked the problems that were strongly pronounced in 2013-2017, with the "-" sign – the problems that exist, but cannot be identified as root, key, resultant, or autonomous. The "+"

sign means more positive in the solution of the problem, the "-" sign means domination of negative in the solution of the problem (see Table 01).

Finally, a matrix of problems was made, on the basis of which it was concluded that the mechanism of integration of pedagogical theory and pedagogical practice in the system of university pedagogical education is, in fact, the process and result of development of multidimensional entity of a future teacher in the conditions of integrative-pedagogical activity (see Table 01).

**Table 01.** Typical problems associated with

Types of problems	Typical problems associated with
Root	The holistic nature of the "subject of development" - the student (the future teacher) - and a powerful structure disintegrated among themselves methodological and substantive essentials of the processes of development and training which has formed over the last years
	The process of establishment and development of mechanisms of integration of educational theory and practice as the leading regularity of development of the theory and methods of higher professional education, virtually dominated by disintegration trends in training and development systems
	A large-scale integrative work in the system of university teacher education and lack of adequate effect of integration on the processes of training of a new teacher type, i.e. A teacher of the XXI century
	The process and the result of establishment, formation and development of multivariate integrity of the future teacher and inadequate conditions of integrative-educational activity
Key	The urgent need for conceptual validation of mechanisms of educational integration as a leading trend of development of modern theory of vocational education and insufficient elaboration of its fundamental positions in the system of professional teacher education
	The absence of conceptual model of creation and implementation of mechanisms of integration of educational theory and practice under conditions of transformation of teacher education: the model should become an effective means of development of both integration by itself and the integration of educational theory and practice
	The problems of correlation of the initial problem, shaped within the framework of either the basic or co-operative branch of science, with the problems specific to educational practice
Resulting	The elements of the logical structure of integration: lack of correlation between the basic cooperating discipline (e.g. Educational psychology, teaching philosophy, development theory, history of educational thought, methods of teaching the subject), defining the objective of integration and a particular integrative result
	The intrastructural integration: lack of correlation between various concepts, principles, knowledge, skills, competences, etc.
	The interstructural integration: lack of correlation between knowledge and skills, knowledge with the experience of creative educational activity
Autonomous	The external integration: incompatibility of components of the content with certain forms of educational activity, of methods and means of training and development, etc.
	The optimization of curricula: increased requirements to the professional competence of the future teacher (under the new Federal State Educational Standard) and reduction of hours in the curricula, which impede full integration of theory and practice
	Non-conforming with the processes of training transformation, systems of: 1) development as a process of progressive change of intellectual, spiritual, moral, cultural qualities of the future teacher; 2) establishment as a form of emergence new intellectual, spiritual, moral, cultural qualities of the future teacher; 3) formation as a technology of enrichment of the personality of the future teacher with new intellectual, spiritual, moral, cultural qualities

In this respect, development is a process of gradual change of intellectual, spiritual, moral, cultural qualities of the future teacher; establishment is the emergence of new intellectual, spiritual, moral, cultural qualities of the future teacher; formation is the enrichment of the personality of the future teacher with new intellectual, spiritual, moral, cultural qualities (Khairullin, Nigmatov, & Baubekova, 2016).

Thus, the most important mechanisms for the integration of theory and practice include:

- the design of methodological and content fundamentals of development and training processes;
- formulation of the source problem, shaped within the framework of either the basic or co-operative branch of science, with the problems specific to educational practice;
- establishment and formation of multivariate integrity of the future teacher under the conditions of integrative-educational activity;
- correlation of the basic cooperating discipline (e.g. educational psychology, teaching philosophy, development theory, history of educational thought, methods of teaching the subject), defining the objective of integration with a particular integrative result;
- correlation between various concepts, principles, knowledge, skills, competences, etc.;
- correlation of knowledge with skills, knowledge with experience of creative educational activity;
- correlation of content components (curricula, programs, teaching materials) with some forms of educational activity, methods with means of teaching and development, etc.

## **7. Conclusion**

The study shows that the root problems of integration of the theory and practice include those related to the holistic nature of the "subject of development" of the student (the future teacher) and disintegrated among themselves methodological and substantive essentials of the processes of development and training which has formed over the last years; to the process of formation and development of mechanisms of integration of educational theory and practice as the leading regularity of development of the theory and methods of higher professional education and virtually dominated by disintegration trends in training and development systems; to the large-scale integrative work in the system of university teacher education and lack of adequate effect of integration on the processes of training of a new teacher type, i.e. a teacher of the XXI century; to the process and the result of establishment, formation and development of multivariate integrity of the future teacher and inadequate conditions of integrative-educational activity (Meyer, 2008).

The key problems are the contradictions related to the urgent need for conceptual validation of mechanisms of educational integration as a leading trend of development of modern theory of vocational education and insufficient elaboration of its fundamental positions in the system of professional teacher education; to the absence of conceptual model of creation and implementation of mechanisms of integration of educational theory and practice under conditions of transformation of teacher education: the model should be an effective tool for the development of both integration and the integration of pedagogical theory and practice; to the problems of correlation of the initial problem, shaped within the framework of either the basic or co-operative branch of science, with the problems specific to educational practice.

The matrix obtained during the study, demonstrates (see Table 01) that the development of mechanisms of integration of theory and practice necessitates, primarily:

- the solution of the problems related to the elements of the logical structure of integration (these are the resulting problems): lack of correlation of the basic cooperating discipline (e.g. educational psychology, teaching philosophy, development theory, history of educational thought, methods of teaching the subject), defining the objective of integration with a particular integrative result; with intrastructural integration: lack of correlation between various concepts, principles, knowledge, skills, competences, etc.; with interstructural integration: lack of correlation between knowledge and skills, knowledge with the experience of creative educational activity, etc.;

- the development of external integration techniques related to autonomous problems: incompatibility of components of the content with certain forms of educational activity, of methods and means of training and development, etc.; with non-conforming with the processes of training transformation, systems of:

1) development as a process of gradual change of intellectual, spiritual, moral, cultural qualities of the future teacher;

2) establishment as a form of the emergence of new intellectual, spiritual, moral, cultural qualities of the future teacher;

3) formation as a technology of the enrichment of the personality of the future teacher with new intellectual, spiritual, moral, cultural qualities.

## References

- Barnes, N. G., & Mattson E. (2017). *Social media and college admissions: higher-ed beats business in adoption of new tools for third year*. Retrieved from <http://www.umassd.edu/media/umassdartmouth/cmr/studiesandresearch/socialmediaadmissions.pdf>.
- Barsukov, E. M., & Panicheva, T. B. (2016). Stadii kreativnogo obrazovaniya [Stages of creative education]. *In-nocentr*, 4 (13), 7–11. Retrieved from [http://innoj.tversu.ru/Vipusk4\(13\)2016/2%20-%20](http://innoj.tversu.ru/Vipusk4(13)2016/2%20-%20)
- Chapaev, N.K. (1998). *Theoretical and methodological bases of pedagogical integration* (Doctoral dissertation). Yekaterinburg. [in Rus.]. Retrieved from <https://www.twirpx.com/file/724569/>
- Education in the countries of Eastern Europe and the USSR (Russia) in the second half of the XX century (2017). (Online survey) *European Association of Students Studying Public Relations*. Retrieved from <http://zdamsam.ru/b15039.html>
- Gabdulchakov, V.F., Kusainov, A., & Kalimullin, A.M. (2016). Education reform at the science university and the new strategy for training science teachers. *International Journal of Environmental and Science Education*, 163-172. Doi: 10.12973/ijese.2016.300a.
- Galvin, C. (2016). Rethinking teacher education in XXI century: issues of a successful reorganization of the system of training teachers. *Second international forum on teacher education* (pp. 13-14). Kazan. [in Rus.]. Retrieved from [http://ifte.kpfu.ru/docs/IFTE-2016\\_Program&Abstracts.pdf](http://ifte.kpfu.ru/docs/IFTE-2016_Program&Abstracts.pdf)
- Gmurman, V.E. (2004). *Rukovodstvo k resheniyu zadach po teorii veroyatnosti i matematicheskoy statistike [Probability theory and Mathematical Statistics: Student manual for institutions of higher education]*. Moscow: Vysshaya shkola. [in Rus.]. Retrieved from <http://internat.msu.ru/wp-content/uploads/2015/10/Gmurman-V.E.-Rukovodstvo-k-resheniyu-zadach.pdf>
- Hamel, G. & Prahalad, C.K. (2014). *Competing for the future. Creating Markets of Tomorrow*. Moscow: Olympus-Business.



- Hsu, J., Hamilton, K., & Wang, J. (2015). Guided independent learning: A teaching and learning approach for adult learners *International Journal of Innovation and Learning*, 17(1), 111–133. Doi: 10.1504/IJIL.2015.066103
- Khairullin, I.T., Nigmatov, Z.G., & Baubekova, G.D. (2016). Traditions as a Means to Upbringing Humanity in Teenagers *International Journal of Environmental & Science Education*, 11(3). 261-268. Doi:10.12973/ijese.2016.309a
- Krasnozhenova, E., & Kulik, S. (2017). Historical Memory about The Great Patriotic War In The Communicative Space Of The Modern Russian Society. *The European Proceedings of Social & Behavioural Sciences*, Vol. 35, 677-682. doi: 10.15405/epsbs.2018.02.161
- Menter, I. (2015). Teacher Education. In James D. Wright (editor-in-chief), *International Encyclopedia of the Social & Behavioral Sciences*, 24, 51–55
- Meyer, B. (2008). What is independent learning and what are the benefits for students? *London: Department for Children, Schools and Families Research Report 051*. Retrieved from <http://docplayer.net/12844512-What-is-independent-learning-and-what-are-the-benefits-for-students.html>
- Prigozhin, A.I. (2007). *Dezorganizaciya: Prichiny, vidy, preodolenie [Disorganization: reasons, types, overcoming]*. Moscow: Alpina Business Books.
- Sokolova, N., Pylkin, A., Safanova, A., & Stroganova, O. (2017). From totalitarianism to the consumer society: has one-dimensional policy come to an end? *4th International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM2017, Conference Proceedings Book2, 1*, 261-268. Doi:10.5593/SGEMSOCIAL2017/HB21/S06.032