



<i>Presentation Title</i>	<b>Methodological Culture in Pre-service Teacher Training</b>
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## Methodological Culture in Pre-Service Teacher Training

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### Abstract

Keywords: methodological culture, systems-analysis method, research activity.

Problem: The ways of methodological culture formation in pre-service teacher training as an important goal of education declared by different educational institutions are not definitely clear.

Theoretical Background: the systems-activity approach (Vygotsky, Rubinstein, Leontiev, Galperin, Reshetova).

Literature Review: 1. Low level of teachers' methodological culture is stated for the social, psychological, cognitive reasons. 2. The notion of the term "methodological culture" in different resources is investigated". 3. Different models of methodological culture formation in pre-service teacher training are analyzed.

The research is performed in the Department of Primary Education in Noginsk Teacher Training College of Moscow Region, Russia. 118 future teachers of primary school are involved in the specially arranged program with the strategic goal to form methodological culture in students. Among them 30 first-year students, 32 second-year students, 28 third-year students, 28 fourth-year students. They are put into experimental psycho-pedagogical conditions – different for each year of training - with the use of system analyses method. The control group – 100 students of the Department of Pre-school Education supervised in the traditional way.

Results: 1. Methodological culture is presented as complicated multilevel structure that includes pedagogical, general scientific and philosophical knowledge, specific skills and habits as well as possibilities to determine and create universal forms of activity. 2. The research activity organized with the use of systems-analysis method is proved to be an effective way of methodological culture formation in pre-service training of primary-school teachers.

Conclusions and Proposals: 1. “Methodological culture” as a didactic unit should be included into the State Educational Standards and Programs of Teacher Education. 2. The research activity is an effective way of methodological culture formation. 3. The research activity should be organized with the use of systems-analysis method.

**Keywords:** methodological culture, systems-analysis method, research activity.

Each educational institution elaborates its strategy and then revises it each year according to the changes taking place in the system of education in Russia.

The analysis of the missions and general goals in some well-known universities and colleges shows that the formation of the methodological culture in students is one of the most important strategic goals.

Nevertheless if we appeal to practice of methodological culture formation in teacher training educational institutions, this activity is often organized without definite system, programme or plan.

### **Problem**

The ways of methodological culture formation in pre-service teacher training as an important goal of education declared by different educational institutions are not definitely clear.

**The aim of the study** is to find out the psycho-pedagogical conditions for methodological culture formation that can be used in a teacher training college for the students of Primary Education Department.

We offer a 4-year programme to teacher training institutions for methodological culture formation which has been successfully approved in Noginsk Teacher Training College.

**Theoretical background of the study** are the approaches that orient students towards their own experience and purposefully forming students' research knowledge and skills.

### **1. Activity approach** (L.S. Vygotsky, S.L. Rubinshtein, P.Ya. Galperin, A.N. Leontiev, etc.)

- activity of the student is an object of controlling and purposeful forming in the educational process.
- discovery of new knowledge should be conducted by the student through *research activity* (not empirically or by trial-and-error).
- when a student is a research activity subject, then he is in process of self-education.
- student's internal needs, standards, abilities change in the following results...
- the results: the new self-determination in the sphere of investigation, the new standards and methods of existing and functioning of the investigated object, receiving of a new content the relevant methods of knowledge, etc.

### **2. Systems approach** (Z.A.Reshetova)

- It is considered to be a universal method of objects research: systems, structures, processes.
- It rejects one-sided, analytical, linear-casual methods of investigation.
- It studies integrative properties of the object, its origin and development.
- **Systems analysis method** is the primary method of investigation, the general scientific method of investigation performing methodological function.

#### **Systems analysis method** (main characters and procedures)

The systematic object structure is under analysis:

- The levels of its structure and functioning are highlighted;
- The analysis of structures of each level and inter-level relations is conducted;
- The object is investigated in its external and internal relations integrity;
- The genetic basis of various forms of system existence is discovered – the integrity of steady and variable in the object;

- The object is investigated from the point of view of its origin, functioning and development.
- The subject of study being examined as an object is discovered by the student not through “laws of units combination”, but through laws of system structure.
- The knowledge about the object acquires a system-structure form of expression.

### **Literature Review**

1. Low level of teachers’ methodological culture is stated.

Indicators of insufficient level are: lack of information, unavailability and inability to apprehend the innovative practices, to introduce design working out, to realise pedagogical ideas.

### **Reasons of the Low level of teachers’ methodological culture**

<b>Social</b>	- Absence of conditions for mastering the methodological culture by the teacher because of inattention to this component of preparation of the future teachers from authorities; - Impossibility of independent acquisition of necessary knowledge and skills because of the congestion of the teacher
<b>Psychological</b>	- Unwillingness - Absence of necessary abilities
<b>Cognitive</b>	Concepts of methodological culture and mechanisms of its formation and perfection are not elaborated.

2. The notion of the term “methodological culture” in different resources is investigated.

The concept «Methodological culture», its maintenance, volume and place in the system of other concepts - both in Philosophy and in Pedagogics - remains uncertain. It leads to misunderstanding, and finally, the term is not used at all. In many textbooks in Pedagogics and even in pedagogical encyclopaedias the concept « methodological culture» is not mentioned at all.

In the middle of 20 century «methodological culture» was identified as philosophical culture because methodology was identified as philosophy. The main criterion of methodological culture of the teacher was the theoretical knowledge of dialectic materialism, ability to use it in the research activity and practice.

In 80th years the methodological culture was considered as intellectual culture.

Nowadays the methodological culture acts as a reflexion of research activity of the teacher in a number of modern researches (V.A.Slastenin, V.E.Tamarin, V.V.Kraevsky, E.V.Berezhnova, V.S.Lukashov, etc).

Some researchers emphasize the didactic aspect of methodological culture (V.K.Kirillov, etc).

The methodological culture as the complete system is considered by developers of the systems approach (V.P.Bespalko, V.A.Dmitrienko, V.N.Sadovsky, V.G.Yudin, etc).

3. Different models of methodological culture formation in pre-service teacher training are analyzed.

There is a search for a universal model of methodological culture formation, but as a rule, the models are presented for higher educational institutions, and there are practically no models for teacher training colleges.

P.G.Kabanov represents methodological culture as the mechanism of self-development of the teacher as the researcher, allowing it to solve effectively arising pedagogical problems on the basis of the general provisions borrowed or created by the researcher himself (methodological installations). He allocates following levels of methodological culture of the teacher: philosophical, general scientific, pedagogical.

### **The research**

The suggested “model of methodological culture formation” in pre-service teacher training is presented.

<b>Year of training</b>	<b>Element of the model</b>	<b>Description of the activity</b>	<b>Results</b>
1-st year	Elaborating abstracts on various disciplines.	The students are trained to work at the abstract under experimental psycho-pedagogical conditions with use of the systems analysis method.	Students get acquainted with the method and gain empirical experience of its use.
2-nd year	The study of the discipline «Bases of student’s educational-research activity».	Training is organized according to the working programs, the authors of which consider concept of methodological culture.	Students get the theoretical knowledge about a phenomenon. Mastering by the systems analysis method is represented as a key indicator of the teacher’s methodological culture.
3-d year	1. The study of the elective course «Theoretical bases of Training».  2. Execution of the Course Works on Pedagogics or Psychology.	Training is organized according to the special programme (author – A.A.Zhukov).  The process is organized in experimental psycho-pedagogical conditions with use of the systems analysis method.	Students get the theoretical knowledge about systems-activity approach and the systems analysis method. The students master the use of the method.
4-th year	Execution of Final Qualification Work in different disciplines	The process is organized in experimental psycho-pedagogical conditions with use of the systems analysis method.	The students use of the systems analysis method without assistance. That is the indicator of the methodological culture.

### **The design of the pedagogical experiment**

The experiment is performed in the Department of Primary Education in Noginsk Teacher Training College of Moscow Region, Russia.

118 future teachers of primary school are involved in the specially arranged program with the strategic goal to form methodological culture in students.

		<b>Experimental Group</b>	<b>Control Group</b>
<i>Speciality</i>		<b>Primary Education</b>	<b>Pre-school Education</b>
<i>Number of students</i>	1-st year	30	30
	2-nd year	32	26
	3-d year	28	24
	4-th year	28	20
<b>Total</b>		<b>118</b>	<b>100</b>
<i>The type of supervision</i>		In experimental psycho-pedagogical conditions with the use of system analyses method according to the offered “model of methodological culture formation”	Traditional

### The results

The average results on each element of the “model of of methodological culture formation” are compared (mark “5” is the highest point).

<i>Elements of the model</i>	<i>Control Group</i>	<i>Experimental Group</i>
Elaborating abstracts on various disciplines.	<b>4,1</b>	<b>4,5</b>
The study of the discipline «Bases of student’s educational-research activity».	<b>4,5</b>	<b>4,5</b>
The study of the elective course «Theoretical Bases of Training».	- (the students do not attend the course)	<b>4,4</b>
Execution of the Course Works on Pedagogics or Psychology.	<b>4,0</b>	<b>4,6</b>
Execution of Final Qualification Work in different disciplines	<b>4,0</b>	<b>4,6</b>

### Conclusions

1. The results of the experimental group are better than of the control group.
2. The model of methodological culture formation is proved to be effective.
3. The research activity organized with the use of systems-analysis method is proved to be an effective way of methodological culture formation in pre-service training of primary-school teachers.
4. The methodological culture is presented as the complicated multilevel structure that includes pedagogical, general scientific and philosophical knowledge, specific skills and habits as well as possibilities to determine and create universal forms of activity.

### Proposals

- 1.” Methodological culture “ as a didactic unit should be included into the State Educational Standards and Programs of Teacher Education.
2. The model of methodological culture formation may be used in teacher training institutions of different levels – colleges and institutes.
3. The research activity in the educational process should be organized with the use of systems-analysis method.

**References:**

1. Berezhnova E.V., Kraevsky V.V. Bases of student's educational-research activity. – Moscow: Academia, 2005/ - 128 pages.
2. Kabanov P.G. The Improvement of Methodological Culture in a Teacher. – Tomsk, 1999. – 140 pages.
3. Kolomiets O., Predushchenko O. College Students Research Activity // Comparative Education, Teacher Training, Educational Policy, Social Inclusion and Child Psychology. Volume 7. – BCES, 2009. – pages 147-151.
4. Kolomiets O.M. Psychological and Educational Conditions for Prevention of Students Poor Progress // The Problems of Psychological and Educational Support of Educational Space Subjects. - Moscow: MDO, 2005 - Pages 62-73.
5. Kolomiets O.M. Training Appliances Content Requirements for a Subject from the Position of Active and Systems Approaches to Teaching // Pedagogical problems of education. - Noginsk, 2005. - pages 35-45.
6. Reshetova Z.A. Forming of Systems Thinking in the Course of Teaching: Tutorial for Higher Schools / Under the editorship of Z.A. Reshetova. Moscow: UNITI-DANA, 2002.- 344 pages.
7. Yudin E.G. The Systems Approach and Activity Principle. - Moscow: MGU, 1978. - 113 pages.
8. Zhukov A.A. Theoretical bases of Training. Volumes 1-3. – Noginsk, 2007.

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