

METHODOLOGY FOR LOCAL HISTORY CONCEPT FORMATION IN CHILDREN AGED 7-10 YEARS

Elena Nikolaevna Kondrashova, Elena Nikolaevna Rashchikulina,
Irina Yuryevna Isaeva, Natalya Aleksandrovna Plugina and
Nelli Gennadievna Suprun

The article substantiates the necessity of forming local history concepts as a basis for the implementation of modern educational guidelines on the spiritual and moral foundation. In this regard, the article is aimed at describing methodology that provides efficient formation of local history concepts in children aged 7-10 years. The main practical results of the study include the presented algorithm for elaboration of problem-developing exercises for children which are based on the idea of the formation of scientific concepts with regard to the dominance of figurative, emotional-sensory components of thinking. Presented methodology can serve as a guide in the implementation of modern educational reference points in the field of patriotic education of schoolchildren, and also may be used to develop author's methodologies for the formation of scientific concepts. The materials of the research are of practical value for the teacher's professional activity.

Keywords: primary school, local history concepts, methodology for local history concepts formation, learning methodology, patriotism, love for the native country.

I. INTRODUCTION

The development of a sense of love for the Motherland was rightly considered the key pillar for the upbringing by the classics of foreign pedagogy: Jan A. Komensky [1], Johann H. Pestalozzi [2], Adolph W. Diesterweg [3], as well as Russian educators: A.N. Radishchev [4], K.D. Ushinsky, [5], L.N. Tolstoy [6], A.S. Makarenko [7], V.A. Sukhomlinsky [8] and others. Love for the native country implies love and respect for the people, responsibility and careful attitude to its history and traditions. A significant contribution to the development of local history in school education was made by K.D. Ushinsky, who theoretically substantiated the "motherland-specific principle" in teaching and upbringing.

Teachers, social workers, and local historians dedicated their works to the formation and development of regional studies through history in the 20-90ies of the twentieth century: M.I. Kalinin, A.I. Lazarev, P.I. Rychkov, N.A. Soboleva, M.V. Soloviev, V.N. Tatishchev, V.G. Chekan and others. Issues of the organization of local history studies at school are dealt with in the works of Russian scholars: P.V. Ivanov [9], G.N. Matyushin [10], K.F. Stroev [11], G.Yu. Elkin [12], and other scholars. The works by P.V. Ivanov [9], A.M. Valner [13], I.M. Galichenko [14], M.D. Yanko [15] are devoted to the problems of regional studies at school.

¹ Nosov Magnitogorsk State Technical University, Magnitogorsk, Russia, *E-mail:* elena_060671@mail.ru

Valuable contribution to the development of the main problems of regional studies at school was made by K.F. Stroeve [11], I.S. Matrusov [16] (regional studies through geography); I.D. Zverev [17] (environmental regional studies); G.N. Matyushin [10] (regional studies through history), M.D. Yanko [15] (regional studies through literature), P.V. Ivanov [9] (general theory and history of regional studies at school). Well-known scientists and educators made a great contribution to the theory and methodology of regional studies at school: A.S. Barkov [18], A.F. Rodin [19], M.N. Skatkin [20] and others.

II. CONCEPT HEADINGS

The implementation of modern educational guidelines is possible only on a solid spiritual and moral foundation, in which the sense of love for the motherland and the sense of patriotism play a key role. History and regional studies at school are important means of its connection with life. The acquisition of knowledge about a particular region, the study of its nature, history, economy, life and so on should be a cultural tradition of any people. In this respect, the value of local history material in teaching of history, homeland studies, natural history, literature and other disciplines of the general education school cannot be overestimated. Educational work skillfully delivered by the elementary school teacher creates the prerequisites at the level of subjects of the humanitarian cycle for the moral education of the younger generation. The teacher's mastery is to make the development of thinking an organic part of the child's moral formation process. Only in this case knowledge will become personal, internal. This is not a special kind of knowledge, but rather a special way of its existence, in which not only the cognizable reality, but also the cognizing personalities, their attitude to knowledge and their emotional experiences are captured.

The aim of the study is the theoretical justification and experimental verification of a set of pedagogical conditions that ensure the effectiveness of the formation of local history concepts in children.

The hypothesis of the study is as follows: local history concept formation in children aged 7-10 years will be more effective in the educational activity when implementing the following pedagogical conditions: 1) local history concepts are formed with regard to their spiritual, moral and emotional-sensory potential; 2) the independent and initiative nature of children's thinking is activated with the strengthening of creative principles; 3) the content and methods of planning lessons are optimally chosen, taking into account the specifics of children's thinking; 4) methodology for the formation of these concepts is built on the basis of general dialectical stages of cognition and the corresponding properties or signs of concepts; 5) special didactic materials are created and used for objective and operative diagnostics of the level of formedness of concepts.

The set of pedagogical conditions developed by the authors includes three obligatory and two sufficient conditions (novelty prevails in the latter).

The first obligatory condition is local history concept formation in children taking into account their spiritual, moral and emotional-sensory potential. The roots of a feeling of love for the native country go to the lesser motherland, that is, to the places where the person was born and grew up. It is from the “lesser motherland” that the Great Motherland begins. Patriotism is a semantic center of these concepts. Local history concept formation is possible only on the basis of development of certain qualities of patriotism. The authors have identified and specified such qualities of patriotism as [21]:

- love for the Motherland, for the native places, the mother tongue;
- respect and knowledge of the history of their native country, traditions, culture and customs of their people;
- intolerance to racial and national hostility;
- striving to uphold the honor and dignity of the Motherland, readiness to defend it, readiness to serve the interests of the Motherland.

The feeling of patriotism combines love for the native country, respect for the history, traditions and culture of Russia, the nation, caring attitude to the native land. This feeling includes faith in the possibilities and understanding of the peculiarities, of one’s nation, the concern about its future. It is important to emphasize here that pride for one’s nation is combined with deep respect for people of different nationalities who inhabit their native land. Love for the native country is inseparable from the emotional experiences of the beauty of nature, the awareness of responsibility for our common home – the planet Earth.

At modern schools it is necessary to educate pupils to act voluntarily and naturally in accordance with the moral ideals and norms accepted in society in the definite, historically developed forms. This, of course, will require appropriate adjustment of school education, designed to provide the necessary level of humanitarian thinking, moral and spiritual values, without which it is impossible to develop the identity of the individual, to bring up historical memory, patriotic consciousness, love for the Motherland, for Russia.

The second obligatory condition implies that the independence and initiative nature of children’s thinking become more active with the strengthening of creative principles. The learning process is possible only if the teacher and the learner are interconnected. This provision is the central link of the modern idea of “pedagogy of cooperation” (cooperative learning).

First of all, it should be emphasized that the creation of the learner’s positive attitude to mastering the concept occurs when there are corresponding positive motives. In the process of the formation of local history concepts, it is necessary to activate the learners’ independent thinking activity. One of the methods that contribute to this process is to create a problem situation, as a result of the analysis of which the learners come to the conclusion that their knowledge is insufficient to

explain a new phenomenon, a new fact and there is a need to introduce a new concept. A problem situation is a combination of circumstances that ensure the emergence and addressing (implementing) of problematic issues, problems or tasks. It arises in the specific conditions of the learning process, and is specifically created by pedagogical techniques, methods and tools.

To create problem situations, the following methods and techniques were used: motivating schoolchildren to the theoretical explanation of standard (algorithmic) methods, ways to get out of the problem situation; using extensively situations from past experiences of the schoolchildren; searching for conditions for using the result of the problem task; motivating for analysis, synthesis, generalization, systematization and other mental operations; making assumptions, etc.

At the same time, the work of schoolchildren from the perspective of problem-based learning was built by the authors in the following sequence: the search for the problem or posing it; its acceptance by the learners; analysis of the problem to identify contradictions; analysis to identify knowledge and ignorance; hypothesizing as a possible solution; solution as a hypothesis verification; evaluation of the result obtained.

The authors' reference to problem situations as a means for the formation of cognitive independence in schoolchildren is dictated by the fact that:

- 1) they have high diagnostic qualities, enabling to assess the proficiency in concepts mastered by the learners;
- 2) they characterize the dialectical unity of the goal and the means of achieving it, that is, they serve both as a way of setting the leaning goal and as a polyfunctional didactic means to activate, manage, individualize and differentiate learning;
- 3) the authors relied on the fact that the process of concept formation is of a phased nature and involves the advancement of learners from one level to another.

While developing the methodology for the formation of basic concepts among pupils in the learning system, the authors employed the works by V.À. Belikov [22], G.G. Granatov [23], N.Yu. Postalyuk [24], G.K. Sereda [25]. In the implementation of the methodology for local history concept formation in children, the following methods were used: theoretical analysis (generalization of advanced pedagogical experience, structural and logical method), empirical methods (pedagogical experiment, questioning, observation, modeling, conversation, testing, analysis of 7-10 years-old children's creations), the non-parametric ("chi-square") and parametric (Student's method for dependent samples) methods of mathematical statistics were used to process the experimental data. According to the applied methods, the level of local history concept formedness is determined by cognitive, creative and reflexive criteria. The main provisions of the methodology are formulated as follows:

- the way of task presentation takes into account the principle of continuity and consistency in the process of forming cognitive independence in schoolchildren and ensures their gradual involvement in higher-level learning and cognitive activities;
- the task is formulated completely, which aims the learners to the final result;
- the development of a solution to complex (creative) problems is carried out through collective search for an “provisional” basis for actions;
- as the level of task problematicity increases, so does the level of the learners’ cognitive independence when solving these tasks;
- the system of tasks is deployed according to the scheme: algorithms – heuristics – creativity.

To understand the ultimate goal of the whole series of actions to solve such a sequence of tasks, a central task was formulated that focused pupils on the final result. A “chain” of tasks (within a separate lesson) that was united by a central task, was deployed in the direction of reducing the problematicity levels. As it was shown in the course of the experiment, such an organization promotes an understanding of the purpose and logic of the activity, which are introduced by the central tasks and typical algorithms for their solution, and the development of the operational and technical aspect of the formed activity when solving the chain of tasks becomes meaningful and internally motivated. The general direction of teaching was the presentation of a more complicated task according to the scheme: algorithm – heuristics – creativity. Moreover, with the increase in the level of task problematicity, the level of cognitive independence of schoolchildren increased in parallel when they were solved.

It is easier for the children aged 7-10 years to learn the signs of those concepts that can be imagined, seen clearly. Therefore, visualization becomes extremely important. In the course of our experiment, we used all visual aids:

- objects (tools of trade, items of clothing, utensils, etc.);
- conditional-graphic aids (schemes, tables);
- illustrated aids (reproductions, illustrations, street name signs, maps, drawings).

A number of local lore skills, in particular, the ability to navigate through the map-scheme are also built in primary school pupils. Such a map-scheme allows children to form not only a spatial inference, but also contributes to the formation of practical skills of lost-proofing. Learners “animate” the map, “travel” along it, plotting the route from school to the studied object. At the end of the school year, the following task is possible: lay the most interesting route to a certain object, tell us which monuments and sights you meet on your way.

In the process of forming local history concepts, it is necessary for the teacher to interact with parents. Parents and children together make up fairytales, walk, and children tell their parents about what they learned in class. In turn, parents lead children to their favorite places. Of course, this is not the case in all families. However, the questioning of parents indicates the interest of adults in the local history course.

The third obligatory condition is that the content and methods of planning lessons are optimally chosen with regard to the specifics of children's thinking. Dosing a specific material for the lesson, it is necessary to be guided by:

- the number of concepts selected for study;
- their degree of pupils' familiarization with these concepts;
- the degree of their novelty;
- the real opportunities of cognitive abilities of pupils of this age group.

Successful implementation of our methodology is possible when selecting and executing intensive units of learning material for the formation of local history concepts: "I and the world around" (corresponds to the first stage of cognition – the foundation), "From where does the Motherland begin?" (corresponds to the second stage of cognition – the nucleus), "My Fatherland" (the second and third stages of cognition – the nucleus, the consequences), "Man and humankind" (the third and fourth stages of cognition – the consequences and a general critical interpretation). Each unit of learning material includes certain sections presented in Table I.

All the units are interrelated in such a way that the study of each previous one is the basis for studying the next.

The selection of material is made taking into account the age-related psychological characteristics of children. These are, first of all, specific objects (buildings, monuments, bridges, gardens and parks, rivers, etc.). Children should not be overloaded with unnecessary information. It is required to select such material that will help the child look differently at a familiar environment, will be as close to the learners as possible and personally significant to them.

The first sufficient condition – methodology for the formation of local history concepts – is built on the basis of general dialectical stages of cognition and corresponding properties or features of concepts (generalization, irreversibility, convolution, phasing, systematicity and reflexivity). In the relevant methodology, we take into account all their common properties and their specificity in children's brainwork. The sequence of these features to a certain extent corresponds to the basic stages of the concept formation, cognition of its essence: the foundation (I), the nucleus (II), the consequence (III), the general critical interpretation (IV). Managing the concept formation process, implementing the corresponding stages in the thinking of pupils, we control their reflection – and, therefore, we form their

reflexive skills. In this regard, it is worth talking about integrative, rather than interdisciplinary (intersubject) concepts, as the concepts themselves seem to have a complex structure and can be subjects of study for various disciplines. We believe that local history concepts are integrative and include all of the above listed features, being quite capacious and large-scale.

TABLE I: CONTENT OF LEARNING MATERIAL UNITS

<i>Units</i>	<i>Sections</i>
“I and the world around” (1 form)	Where we learn. I and my family. I and my name. Our city.
“From where does the Motherland begin?” (2 form)	String of time My family tree The name of my city History in architectural monuments History of things Clothes in different times History in symbols and signs History of writing system What and how does history study
“My Fatherland” (3 form)	Your relatives and your Motherland in the flow of time The Times of Ancient Rus. IX-XIII c.c. The Times of Moscow state. XIV-XVII c.c. The Times of the Russian Empire. XVIII – beginning of XX c. The Times of Soviet Russia and the USSR. 1917-1991. Modern Russia.
“Man and the humankind” (4 form)	Man and his inner world Man and human realm history of humankind Many-faced humankind Man and global humankind

The selection of the second sufficient condition, when special didactic aids are created and used for objective and operative diagnostics of the level of formedness of concepts and cognitive skills, is aimed directly at studying the process of local history concept formation in children and dialectical thinking through special tests and problem-developing exercises.

It must be emphasized that local history concepts formation in children is effective in the context of a person-oriented education addressed to feelings, to the individual and unique inner world of a person. Such education is of a dialogical, meditative, understanding, empathic nature. In many respects, this is determined by the elementary school teachers, the degree of their pedagogical skill, the level of pedagogical reflection, the depth of professional pedagogical thinking.

The basis of the presented methodology is the method of complementarity by G.G. Granatov [23]; psychological and pedagogical concepts of conceptual development by American psychologist and educator, specialist in cognitive process studies J. Bruner [26], the theory of cognitive development by Swiss psychologist and philosopher J. Piaget [27], works by psychologists and educators of the Soviet Union and Russia L.S. Vygotsky [28], P.Ya. Galperin [29], G.G. Granatov [23], A.V. Usova [30], M.N. Shardakov [31], and others; ideas about a relationship of figurative and verbal components of thinking in the development of scientific concepts in children by American philosopher and educator J. Dewey [32], scientists of the Soviet Union and Russia L.A. Venger [33], Ye.N. Rashchikulina [34], and others; a concept by N.N. Poddyakov [35] on self-development of children's thinking; conceptual development diagnostic techniques elaborated in the studies of V.P. Bepalko [36], A.A. Kyveryalg [37], and others.

Explicating the above ideas, the authors have designed a methodology model for local history concepts formation in children. Therein, it has been attempted to represent all the aspects of the methodology developed by the authors: a substantive and an organizational-technological ones, as well as a procedural one.

The first component of the model in the form of Euler's intersecting circles is generic relations of the reference categories presented in Figure 1. Here, the authors' understanding of generic relations and the relation of subordination within the developed methodology is presented in the form of Euler's intersecting circles, with a conceptual pragmatist technology lying in the core of this methodology, which, in turn, is a consequence of the complementarity method. A cell common to all these Euler's circles (highlighted in the figure) simplistically displays the main idea and the major methodological guidelines of the research methodology.

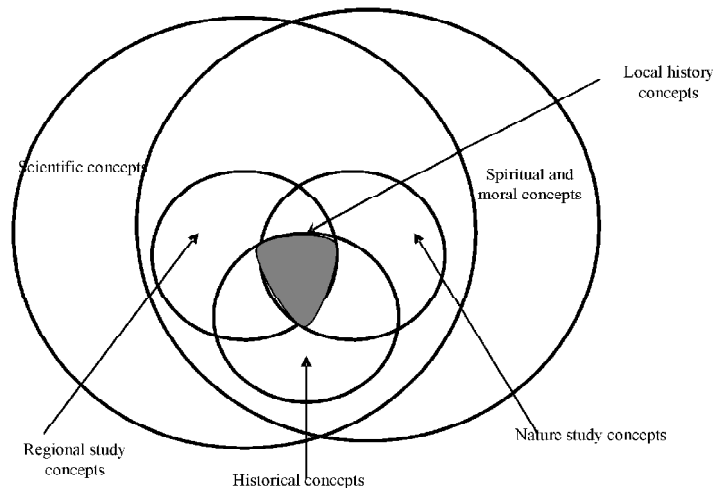


Figure 1: Generic relations of overarching categories

As can be seen from Figure 1, there is an integration of two reference elements – scientific concepts and spiritual and moral concepts, and an integration of the three main components composing local history concepts; they are natural history concepts, historical concepts, and local lore concepts. All this is a necessary foundation for effective formation of local history concepts in children.

The main drawback of the traditional system of education is that teachers tend to implement only one function of knowledge, that is information function, leaving aside or poorly implementing another one, no less important; that is, the one developing thinking, and, consequently, educating function. Continuous developmental education does not only require a teacher to present knowledge in a particular system, but it also expects to teach elementary school pupils to contemplate cognizing the world around them, to seek for answers to the questions posed, to extract new knowledge using the existing one.

The second component of the model is the time graph of local history concepts formation methodology in children: ‘lesser motherland’, ‘Homeland’ is a technological component of the model, presented in Table II. Herein, a specific methodical graph of local history concepts formation in children is presented, combining both generic (the first and the second columns) and specific elements (the third column) of the methodology developed by the authors. It has been shown how stages of the ‘lesser motherland’ or ‘Homeland’ concept are interrelated and how they are implemented in course of the academic subject area studies; how educational information introduced in classes influences necessary features of local history concepts formation and what exercises or assignments are used while learning; also, how the selected elements of the complementarity method chosen are used. It clearly shows implementation of all the pedagogical conditions as well.

TABLE II: GRAPHIC REPRESENTATION OF THE METHODOLOGY FOR FORMATION OF LOCAL HISTORY CONCEPT ‘LESSER MOTHERLAND’

<i>Concept features</i>							
<i>generalization</i>	<i>irreversibility</i>	<i>convolution</i>	<i>phas ing</i>	<i>systematicity</i>	<i>reflexivity</i>	<i>Stages of concept studying</i>	<i>Questions of problem-developmental exercise to form the concept of ‘lesser motherland’ in children</i>
+	•	•	•	•	+	I. Concept foundation	1. What did you feel when you read (listened to) the poem by N. Starshinov “There’s such blue skies over the Motherland” ...
•	*	•	•	•	+		2. We have a lesser motherland – the place where we were born, that is, our hometown. Guess how are people called who live in our city?

contd. table II

<i>Concept features</i>						<i>Stages of concept studying</i>	<i>Questions of problem-developmental exercise to form the concept of 'lesser motherland' in children</i>
<i>generalization</i>	<i>irreversibility</i>	<i>convolution</i>	<i>phasing</i>	<i>systematicity</i>	<i>reflexivity</i>		
+	•	•	•	•	+	II. Concept nucleus	3. Join the city and the river on which it stands with an arrow.
•	+	•	•	•	•		4. What city is it referred to?
*	*	•	•	+	+		5. Find the coat of arms of your lesser motherland. Tick. Explain. What symbols of the emblem helped you?
*	*	•	•	+	+		6. Find the flag of your lesser motherland. Tick. What does the flag of lesser motherland symbolize?
•	•	•	•	•	+		7. Do you know the name of the mayor of our city? What would you do for the city if you became a mayor?
+	•	*	+	•	•		8. Lesser motherland is ...
•	+	+	*	*	•		9. Complete the diagram using the proposed questions.
+	•	*	+	+	•		10. Choose the correct answer: Motherland is ...
•	•	+	+	*	•		11. Draw a diagram and fill it using the suggested words.
•	*	•	+	+	*		12. Explain the sense of the proverb.
+	*	•	•	•	+	III. Consequences	13. Give examples of street names that reflect: a) the heroic past of the city; b) the names of the prominent people; c) names associated with the peculiarities of the geographical location of the city.
*	+	+	•	•	+		14. Join the monument of culture and the city where it is located with an arrow. In what version of the answer is the information about your city correct and complete?
*	+	*	+	*	*	IV. General interpretation	15. Why is Magnitogorsk called the "steel heart" of the Motherland?
*	+	*	+	*	*		16. Prove why it is necessary to respect the traditions of people of different nations.
*	*	*	*	*	*		17. Think about what you and your friends can do for your city. Write.

In the table, the first column indicates which necessary features of a concept are addressed by the questions in these exercises, and to what extent (whether to the fullest extent) these features can be formed in this lesson. In the graph, the necessary concept features are correlated with the four stages of cognition (basis – core – consequences - general critical interpretation). The signs (*) denote the concept features that dominate at this stage, (+) stands for the presence of this feature, and the (•) signs are an indirect manifestation of a concept feature at the respective stages of cognition.

In the second column of the graph, development stages of the educational information in this course are presented in accordance with the four stages of its cognition: I - basis, II - core, III - consequences, IV - general critical interpretation.

In the third column, the authors placed numbers of the assignments that were used to implement the methodology offered to children in course of studying the entire course – problem-developmental exercises. They constitute a methodical system that is a kind of school of self-knowledge, self-education for elementary school pupils – a school of reflection and development of dialectical conceptual thinking. With their help, it is quite simple and convenient to assess the effectiveness

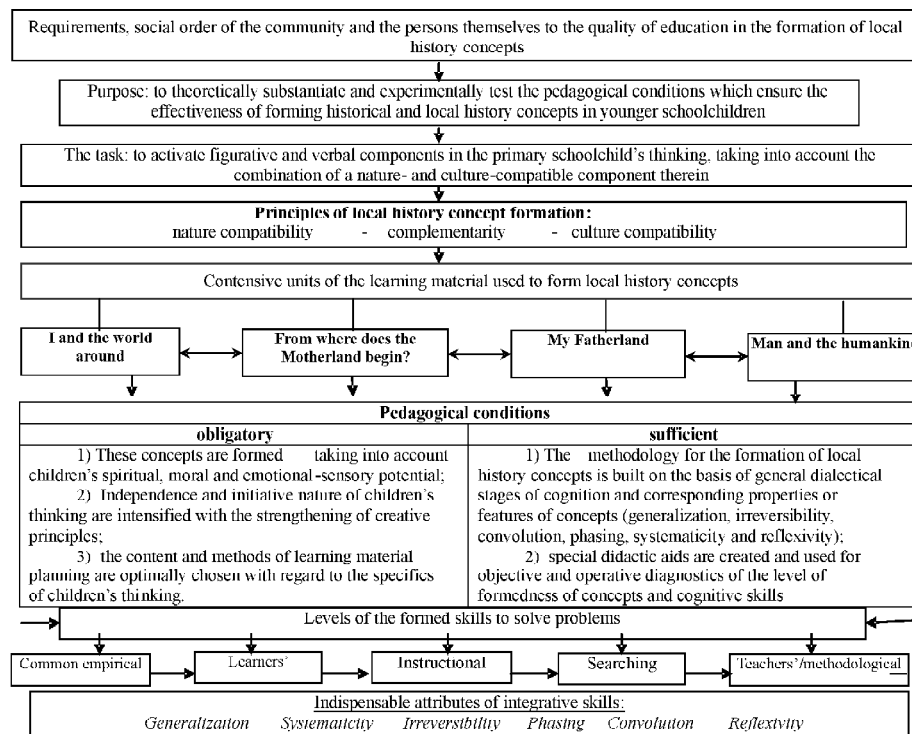


Figure 2: Scheme of the process of forming local history concepts in children

of forming and developing relevant concepts in children. They contain a cogitiveness program that allows a child to carry out an immediate reflection. Thus, the described graph allows one to show visually and concisely in information terms the essence of the methodology proposed by the authors.

The third component of the model includes a general scheme of local history concepts formation process in children presented in Figure 2.

Socio-economic and political conditions, reforms of Russian education, the 'information boom' are changing the basic educational guidelines – from 'education for the entire life' to 'education throughout the entire life'. In this respect, implementation of developmental guidelines in the cognitive activity of pupils acquires a special significance. Methodologically adequate, full-fledged process of scientific concepts formation and development of cognitive skills are important herein: to identify the essence of objects or phenomena, to manage one's own cognition process in an optimum manner, to independently make decisions in a situation of choice, to establish working partnership relations on the basis of cooperation, intercultural interaction.

This problem is caused by the need to increase the educational potential both in order to meet the requirements of scientific and technological progress and in terms of forming intellectual, spiritual and moral qualities in members of society that should help them overcome its negative consequences and effectively adapt to new living conditions. An individual must continuously learn to adapt to the changes generated by the development of science and technology. Therefore, the following is presented as the basis of the research: the requirements, the social mandate of society and an individual themselves for the quality of education in terms of local history concepts formation.

Thus, the methodology model developed by the authors to a large extent contributes to the design of local history concepts formation process (generic relations of reference categories, a project organizational scheme for local history concepts formation in children, the time graph of the methodology for local history concepts 'lesser motherland', 'Homeland' formation), which graphically illustrates the patterns of fulfilling pedagogical conditions singled out therein.

In the process of implementing this methodology, a special role is assigned to elaboration of problem-developmental exercises. As an algorithm for teachers to draw up such exercises for children aged 7-10, the authors propose to attach an appropriate content of learning material answering the following questions:

1. Identify the main ideas, goals, objectives of a problem-developmental exercise.
2. Write a sequence of questions of the exercise identifying the actions that dominate each stage of cognition (the stages of cognition: I - basis, II - core, III - consequence, IV - general critical interpretation): perception of properties, attributes of objects, phenomena; generalization of the ideas

(their abstraction); identification of essential and non-essential properties; definition of the concept; identification of links and relationships with other concepts; clarification of the scope, expansion of the concept content;

3. What sign-symbolic and figurative means do you use in formulating questions and answers of a problem-developmental exercise?
4. Select appropriate pictures, an artistic caption, riddles, proverbs, problem situations, etc., to match the questions for conceptual thinking activation in children.
5. Adjust the composed questions based on different types of mental feelings prevailing at each stage of this concept development: their similarities and differences, mental strain, unexpectedness, expectation, surprise, doubt, confidence, irreconcilable contrast, mental success. It is important to involve the mechanism of changing, switching the emotions of children.
6. Check the contents of each question in the exercise taking into account the properties of such concepts: generality, irreversibility, convolution, phasing, consistency, and reflexivity.
7. Think about answering options (3-4 options); in answers to some questions, leave a scope for children's creativity relying on the recommendations by M.N. Tushev [38]:

Optional answers:

- determine boundaries of the mental activity area;
 - indicate objects or specific aspects of one and the same object which the thought should be concentrated on;
 - set the sequence of thought transition from one object to another one at the initial stage;
 - contribute to thought penetration into the essence of an object.
8. What pedagogical functions does each of these questions perform?
 9. What is the degree of independence, creativity of children in answering each question?

This algorithm aims at comprehending the movement of children's thoughts, allows one to involve independence and creativity in the process of forming scientific concepts.

III. RESULTS

Experimental work was carried out by the authors in the context of a pedagogical process close to the natural conditions while learning the 'Patriotic Studies' course for 1st and 2nd forms by elementary school pupils (Municipal General Educational Institution 'Secondary General School' No 7, 64 (MGEI SGS) and an introductory

course of Russian history for 3rd and 4th forms (MGEI SGS No 7, 10, 61, 64). Analyzing the actual conditions of teaching practice has shown the following: if it is referred to the impact of particular pedagogical means on the study of certain personal characteristics and qualities, it takes at least two years for each one, and four years in total to study the contentive units specified by the authors to gain positive momentum. The pedagogical experiment involved 410 pupils of 1st-4th forms of MGEI SGS No 7, 10, 61, 64 of the city of Magnitogorsk.

The following methods were used in course of the experimental work: teaching experience research, observation, survey, testing, modeling, analysis of the activity outcomes of children aged 7-10 years, methods of mathematical statistics.

Experimental and control groups were formed by the authors in accordance with the requirements of an approximate equality of the student body, the pedagogical qualifications of teachers, approximately equal working conditions.

As criteria for the level of local history concepts formedness, the authors singled out a cognitive, a creative, and a reflective criterion.

The cognitive criterion was examined by such indicators as comprehensiveness and solidity of knowledge and defined with the help of special test assignments. In the questions of the test assignments, basic concepts for each section were taken into consideration; the cause-and-effect relations and relationship between them were updated.

Calculation of the coefficient of local history acquisition comprehensiveness was performed according to the formula by A.V. Usova [30]:

$$C = \frac{n}{N}$$
, where n is the number of correctly named (acquired) essential features of a concept; N is the total number of essential features to be acquired at the current stage of instruction (the number of tasks).

The coefficient of concept acquisition solidity was calculated according to the formula [30]:

$$P = \frac{C_2}{C_1}$$
, where C_1 is the coefficient of concept acquisition comprehensiveness upon the first examination; C_2 is the coefficient of concept acquisition solidity upon a subsequent examination.

The creative criterion was tested by such indicators as mental flexibility, ingenuity, and agility. Creativity was checked according to standardized tests proposed by B.S. Tunik, D.B. Bogoyavlenskaya, T.A. Barysheva and adapted to the purpose of the study.

What is meant by reflexivity is the ability to think about how one was thinking and acting in the recent past when solving a particular problem; to think about how you are thinking, acting, and controlling your thoughts at once; to think about a plan for forthcoming actions.

Diagnosis of all the selected criteria was also performed in the problem-developmental exercises elaborated by the authors [39]. It should be especially emphasized that in addition to a control and evaluation function, the exercise fulfills a developing function taking into account the four stages of dialectical cognition: I - basis, II - core, III - consequences, IV - critical reasoning.

The correct task (question) completion scores 2 points, partial completion scores 1 point, incorrect completion scores 0 points. Thus, the maximum score for completing the tasks of the 'lesser motherland' exercise amounts to 40 points. Consequently, the low level is 0-10 points, below the average is 11-20 points, average is 21-30 points, high is 31-40 points.

The following question was important for the researchers: can the selected indicators be represented in the form of different successive states of a measurable quality? The issue in question is related to the problem of distinguishing development levels of the object of interest – formation of local history concepts. Each object can have several levels or states of development. When distinguishing and describing the levels, the authors took into account general requirements for their distinction: the levels should act as clearly identifiable indicators of an object development; a transition from one level to another one should reflect the degree of the object development, while each level must interact with both the previous one and the subsequent one, being either a condition or a result of the development.

- Since five-mark grading system is regular in schools, four levels are distinguished:
- low (reproductive), corresponds to mark '2';
 - below average (algorithmic), corresponds to mark '3';
 - average (constructive), corresponds to mark '4';
 - high (productive), corresponds to mark '5'.

It is easy to see that all the coefficients proposed above vary from 0 to 1. Using the technology to correlate the values of the coefficients with the corresponding grade of the five-mark system, the simplest way is proposed to determine which value of the coefficient is accounted for one point (1/4).

The authors have correlated the scores in the tests with the values of the comprehensiveness and solidity coefficients and a mark, and presented them in Table III.

TABLE III: GRADING SCALE FOR COMPLETENESS AND SOLIDITY OF CONCEPT FORMEDNESS

<i>Levels</i>	<i>Knowledge acquisition completeness (C)</i>	<i>Knowledge acquisition solidity (P)</i>	<i>Grade</i>
Low	0.00 - 0.30	0.00 - 0.30	2
Below average	0.31-0.50	0.31-0.50	3
Average	0.51-0.80	0.51-0.80	4
High	0.81-1.00	0.81-1.00	5

When defining the formedness level of the selected indicators, the researchers used the approach of diagnostics result quantitative processing, which allowed them to define a quantitative index with regard to the formedness manifestation degree of each indicator of local history concepts in children. They introduced the following quantitative indices: the score '0' denoted the low (reproductive) formedness level of the indicator in question; the score '1' denoted the level below the average (algorithmic); the score '2' denoted the average (constructive) level; the score '3' denoted the high (productive) level. The rule for evaluating each indicator with a particular score is presented in Table IV.

The result summary was defined as follows. It is easy to see that the total score for the indicators varies in the range from 0 to 30. The selection of intervals for grouping the distribution data of the student population according to the levels of local history concepts formedness was made on the basis of a technique by A.A. Kyveryalg [37]. According to this technique, the average level is determined by a 25% deviation of a mark from the average over the range of score marks. Then, a mark from the interval from R (min) to $0.25R$ (max) allows one to establish a low formedness level of local history concepts in children. The high formedness level of these concepts is indicated by marks that exceed 75% of the maximum possible. Based on this methodology, the formedness levels of local history concepts in children were determined by the intervals presented in Table V.

The next problem that required a solution was ensuring measurement stability. The measurement stability is expressed in unambiguity of the information that is derived from the diagnostics of local history concepts formedness level in children. The most common method of controlling stability is a re-measurement (assessment): one and the same indicator is measured using the same procedure several times with a time interval. This work was carried out during the searching and educational experiments.

In addition to determining the formedness level of local history concepts in children, a relative index was also important for the research that is called efficiency coefficient in scientific and pedagogical literature ([22; 30], etc.). The efficiency coefficient of local history concepts formation process was determined by the formula:

$$C_E = \frac{N_1}{N_2},$$

where N_1 is the actual number of points scored by each group (the experimental and control ones); N_2 is the maximum possible number of points; C_E is the coefficient of efficiency.

The efficiency levels of local history concepts formation process were determined by the method of V.P. Bepalko [36]. The rule for determining the level of efficiency is presented in Table VI.

TABLE IV: MECHANISM FOR GRADING THE LEVEL OF LOCAL HISTORY CONCEPT FORMEDNESS

Criteria and indicators	Levels and grades for each level			High (3 grades)		
	Low (0 grades)	Below average (1 grade)	Average (2 grades)			
Cognitive	School mark	2	3	4	5	
	Completeness	Thematic tests	0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00
		Problem-developmental exercise 'Lesser motherland'	0-10	11-20	21-30	31-40
	Solidity	Problem-developmental exercise 'Motherland'	0-15	16-30	31-45	46-61
		Thematic tests	0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00
Problem-developmental exercise 'Lesser motherland'		0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00	
Creative	Problem-developmental exercise 'Motherland'	0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00	
	Flexibility	0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00	
	Originality	1-2	3	4	5	
	Fluency	0.00-0.30	0.31-0.50	0.51-0.80	0.81-1.00	
Reflexive	Lack of need for self-analysis; inability to implement it; inadequate evaluation of own activities; recognition of external circumstances as causes of own failures and achievements.	The episodic need for reflexive activity, with external stimulation; the propensity to explain the causes of own failures and achievements mainly by external circumstances.	A steady need for reflection and awareness of its importance; the tendency towards adequacy in assessing own activities; comprehension of the causes of own achievements and failures, first of all, as a result of own efforts.	stable need for reflection, constant access to a reflexive position; an adequate assessment of own activities and results of work; the objective analysis of the reasons for own achievements and failures, acceptance of personal responsibility.		

TABLE V: GRADING SCALE FOR THE LEVEL OF LOCAL HISTORY CONCEPT FORMEDNESS IN CHILDREN

<i>Level</i>	<i>Grades</i>
Low	0-6
Below average	7-14
Average	15-22
High	23-30

A profound analysis of the obtained data makes it possible to ascertain that elementary school pupils have little knowledge required to capture new concepts; they do not fully understand the essence of local history concepts.

TABLE VI: EFFICIENCY LEVEL SCALE

<i>Value of the efficiency factor (Ce)</i>	<i>Levels of organization efficiency</i>
$0.9 \leq C \leq 1.0$	optimal efficient
$0.8 \leq C < 0.9$	efficient
$0.7 \leq C < 0.8$	minimal efficient
less than 0.7	inefficient

The results of the ascertaining experiment obtained by the authors made it possible to draw the following conclusions:

- 37.5% of the pupils have a low level of concept formedness, in 30.0% it is below the average, 32.5% have an average level; a high level of concept formedness has not been identified;
- within the framework of conventional teaching for children, insufficient attention is paid to the process of local history concepts formation, which reduces the educational potential of instruction;
- the low level of local history concepts formedness is related, according to the authors, to poorly developed logical thinking, to the inability to compare, generalize, classify, abstract from particulars, infer cause-and-effect relationships and relations, separate the essential from the nonessential;
- an increase in the level of local history concepts formedness can be achieved through introduction of a methodology and implementation of a set of pedagogical conditions that ensure the efficiency of the process.

Thus, in course of the ascertaining experiment it was revealed that the declared subject is relevant in teaching practice, and its solution requires: an analysis of the problem state; a search for effective ways and means to overcome it; identification of a set of pedagogical conditions for effective formation of local history concepts in children; a definition of methodological aspects of their implementation within the framework of school educational process.

In accordance with the purpose of the educational experiment, an experimental group of 40 people and a control group of 40 people were singled out. The educational experiment took place under real life conditions of general school educational process. In the experimental group, a set of pedagogical conditions was introduced; in the control group, local history concepts in children were formed within the framework of conventional teaching.

The results of the ascertaining stage of the experiment made it possible to identify the vision and the main components of the educational stage of the experiment:

- to define indicators and formedness levels of local history concepts in children;
- to develop a methodology model for these concepts formation in children;
- to check the effectiveness of implementing the main elements of the methodology model in the learning process of elementary school.

To test the efficiency of the experimental conditions for local history concepts formation in children aged 7-10, the following formula for calculating the efficiency coefficient was used:

$$\bar{C} = \frac{\sum_{i=1}^N n_i}{n \cdot N}, \text{ where } n_i \text{ is the variant that represents the number of points that}$$

the student i has scored answering the questions correctly; \bar{C} is the coefficient of comprehensiveness; N is the number of pupils who were performing the task; n is the maximum number of completed action operations learned by the pupils.

Let us consider changes in the efficiency coefficients for formedness of the concepts for the control and experimental groups in three assessments (0, I, II):

$$0 \text{ assessment: } C_{0E} \approx 0.39, C_{0C} \approx 0.39;$$

$$I \text{ assessment: } C_{1E} \approx 0.57, C_{1C} \approx 0.39;$$

$$II \text{ assessment: } C_{2E} \approx 0.82, C_{2C} \approx 0.41.$$

Using a comparative evaluation method, a quality coefficient for the method under consideration was calculated:

$$\alpha = \frac{C_E}{C_C}, \text{ where } \alpha \text{ is the quality coefficient; } C_E \text{ is the efficiency coefficient}$$

of the experimental group; C_C is the efficiency coefficient of the control group.

$$0 \text{ assessment: } \alpha_0 = \frac{0.39}{0.39} = 1.00;$$

$$\text{I assessment: } \alpha_1 = \frac{0.57}{0.39} = 1.46 ;$$

$$\text{II assessment: } \alpha_2 = \frac{0.82}{0.41} = 2.00 .$$

The results of the zero assessment showed that in the control and experimental groups, the comprehensiveness coefficients of concepts acquisition (0.39 and 0.39) were the same at that stage. Yet, the first assessment showed that, when applying the authors' methodology in the experimental group, the comprehensiveness coefficients of concepts acquisition increased to 0.57, as the methodology was tested and a set of pedagogical conditions was implemented to form local history concepts in children. While the control group was taught by the conventional method, they amounted to 0.39. In the third assessment, the results differed almost twice as much: 0.82 in the experimental group and much lower than 0.41 in the control group. The results are shown in Figure 3.

Analysis and generalization of the obtained data as a whole have confirmed the hypothesis of the study and allowed for a conclusion about a successful achievement of the goals of this experiment and this technique applicability in general education institutions, its results being much higher compared with the traditional training scheme.

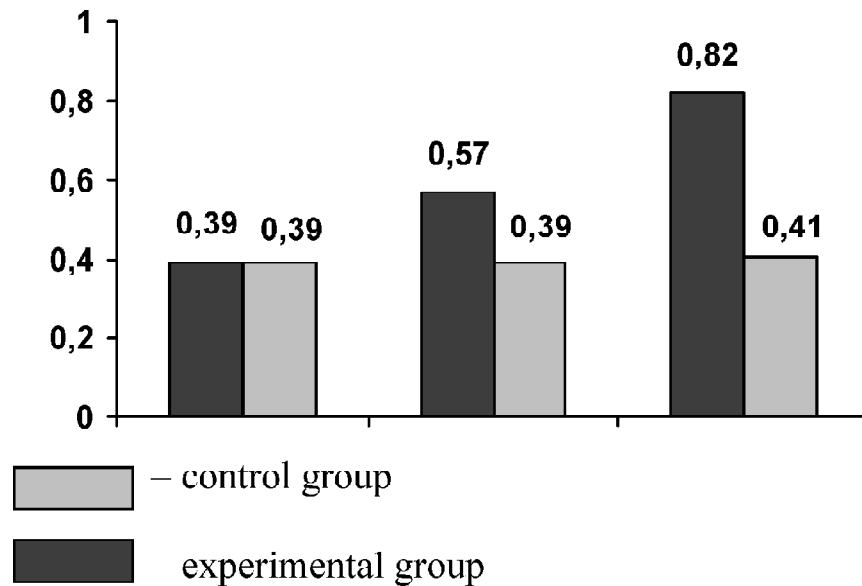


Figure 3: Changes in the efficiency coefficients while forming historical and regional concepts based on three assessments of schoolchildren in the course of the study

The hypothesis was tested and the experimental data were statistically processed with the help of Student’s parametric method (for dependent samples) and the nonparametric method (‘chi-square’) [40].

As a result of the calculations, the following was obtained: $0.05 t (observed) = 23.40 > 1.68 = 0.05 t (critical)$ presented in Table 7. The calculations showed that the value of $t_{obs} = 23.40$ was significantly higher than the one necessary for the significance level of 0.05 with the degree of freedom equal to 39 ($t_{crit} = 1.68$)

The statistical ‘chi-square’ method was used in the study to process qualitative data. At the beginning of the experiment, the difference in comprehensiveness of local history concepts acquisition by the students of the experimental and control groups was statistically insignificant, that is, $\chi_{obs}^2 < \chi_{crit}^2$. At the end of the experiment, $\chi_{obs}^2 = 21.10$, $\chi_{crit}^2 = 3.84$ with the degree of freedom $df = C - 1 = 2 - 1 = 1$. The difference in comprehensiveness of local history concepts acquisition by the students of the experimental and control groups is statistically significant, that is, $\chi_{obs}^2 > \chi_{crit}^2$ at the significance level of 0.05.

This means that the ‘null hypothesis’ about the random possibility to obtain such sufficiently high results in formation of local history concepts is discarded; the significant differences between the samples are underpinned by the implementation of the proposed methodology, and the conclusion about its high efficiency is reliable, whereas the set of pedagogical conditions that determine its success is necessary and sufficient

TABLE VII: THE RESULTS OF THE EXPERIMENTAL WORK ON THE IMPLEMENTATION OF PEDAGOGICAL CONDITIONS TO FORM LOCAL HISTORY CONCEPTS

Groups	Number of pupils	Numerical values of the comprehensiveness coefficients of acquired elements of the studied methodology		
		0 th assessment of pupils	1 st assessment of pupils	2 nd assessment of pupils
EG	40	0.39	0.57	0.82
CG	40	0.39	0.39	0.41
Methods	Comparative analysis			
of	of the $\alpha = \frac{C_E}{C_C}$			
analysis	methodologies	1.00	1.46	2.00
	Dependent sample t-test	Element-by-element analysis		
		For the number of degrees of freedom $n = 40 - 1 = 39$ at $p < 0.05$ $0.05 t (observed) = 23.40 > 1.68 = 0.05 t (critical)$ – is significant		

IV. DISCUSSION

Local history concepts are the basis of patriotic education. The study of the patriotic education issue in Russian and foreign education systems has been handled by M.V. Antonova, S.A. Lomokhova [41]. The authors note that it is in France where moral problems are the most acute. In 2000, 5,000 teenagers from labor outskirts were interviewed for general human values. Moreover, R. Carraz ascertained that every other respondent was disappointed in such values as humanism and patriotism [42]. These are the feelings young people have in Russia.

Representatives of the scientific school have considered methods for various scientific concepts formation in students of different age groups: preschoolers [43], children aged 7-10 [39; 44], middle and high school students, and college students [45,46].

The methodology for local history concepts formation is based on general dialectical stages of cognition and corresponding features of the concepts. The methodology model for local history concepts formation in children includes: generic relations of reference categories, a scheme for the formation of local history concepts, a time graph of the methodology for the 'lesser motherland', 'Homeland' concepts formation illustrate the methodological originality.

In course of the research on this topic: 1) the main elements of the complementarity method have been applied in local history concepts formation taking into account the specifics of children's thinking and the ways of its formation; 2) a set of pedagogical conditions for local history concepts formation in children has been revealed; 3) a methodology model has been developed for implementation of pedagogical conditions for local history concepts formation while children study the disciplines of the humanities.

It should be noted that the totality of the scientific novelty provisions of the survey and the developed methodology model for local history concepts formation contribute to further theoretical comprehension of the thinking pattern of children aged 7-10, to development of general analytical underpinning for solving the problem of local history concepts formation. In addition, the practical significance of the study is determined by the following: the possibility to use the didactic research materials for effective formation of local history concepts taking into account the dominating figurative, emotional and sensory components of children's thinking; the possibility to use problem situations, diagnostic tests, problem-developmental exercises in teachers' practical activities for local history concepts formation ('Homeland', 'lesser Motherland', etc.); 'Patriotic Studies' course syllabus and academic content can also be used with respect to improving a teacher's professional activities in this area.

V. CONCLUSION

The research has confirmed the idea of the hypothesis suggested by the authors and allowed for the following general conclusions:

1. A concept in an elementary school student's thinking in a way integrates in itself the process and the result of cognizing the essence of objects, phenomena, providing generalization, irreversibility, convolution, phasing, consistency, and reflexivity in thinking.
2. Generalizing the principles of natural conformity, cultural congruence, and complementarity in terms of primary school aged children's thinking makes it possible to justify the specificity of scientific concepts formation, dominated by the figurative component in them.
3. The basis for local history concepts formation in children is to take into account the emotional attitude of a child to the material they study. This creates in children's thinking a kind of a dominant, supporting curiosity and interest, which, in turn, are the driving force of the comprehension process.
4. The methodology model of local history concepts formation in children, including generic relations of reference categories, the project-organizational scheme for local history concepts formation in elementary school students, the time graph of the methodology for the local history concept 'lesser motherland' formation clearly illustrates the set of respective pedagogical conditions and the originality of the developed methodology.
5. The process of local history concepts formation involves implementation of the set of pedagogical conditions singled out by the authors: 1) formation of these concepts takes place with regard to their spiritual, moral, emotional and sensory potential; 2) independence and proactivity of children's thinking are activated with a strengthened creative element; 3) the content and methods of planning educational material are optimally selected taking into account the specifics of children's thinking; 4) the methodology for these concepts formation is based on general dialectical stages of cognition and the corresponding properties or features of the concepts; 5) specialized didactic materials are developed and used for an objective and time efficient diagnostics of the formedness level of concepts and cognitive skills.

Unlike the well-known methods of teaching at primary school, the considered methodology contributes to the direct formation of local history concepts and also to the development of children's conceptual thinking, as it takes into account the emotional attitude of the child to the material being studied. Another advantage of the proposed methodology is the fact that the schoolchildren's brainwork integrates the process and the outcome of cognition of the essence of objects, phenomena in

the formation of the indicated concepts, providing generalization, irreversibility, convolution, systematicity and reflexivity in thinking. This creates a kind of dominant in the children's brainwork, supporting curiosity and interest, which, in turn, are the driving force of the process of understanding.

The obtained results are non-exhaustive in terms of the investigated problem entirety. In particular, it seems promising to further improve the methods and modalities of activating cognitive activity in forming children's local history concepts with optimal use of the capabilities of modern computers; a development of respective new diagnostic branching programs for a more automated detection of the formedness level of local history concepts in children; a search for promising areas in the development of workbooks on patriotic studies, scientific and methodological recommendations for teachers.

Acknowledgment

The authors thank the Department of Education of Magnitogorsk Municipal Administration in the Chelyabinsk region represented by Aleksandr Viktorovich Khokhlov (the Department Head) and the dean of the Faculty of Pedagogy and Methodology of Elementary Education of the Magnitogorsk State University for providing the opportunity to study the formedness of local history concepts in children and primary school teachers' aptitude for implementation and testing pedagogical conditions in municipal general educational institutions of Magnitogorsk. Special gratitude should be expressed to PhD, Professor Georgiy Georgievich Garnatov for his kind assistance in conducting the research.

The authors enclose gratitude to the heads of the municipal educational institutions 'SGS No 7', 'SGS No 10', 'SGS No 61', 'SGS No 64' in Magnitogorsk for cooperation in studying the formedness level of local history concepts in elementary school students and testing the pedagogical conditions of the concepts formation in children.

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