

# Integrated teaching in small school as a means of forming cognitive universal educational actions

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**Abstract**—The article dwells upon the theoretical bases of organizing of the integrated teaching of junior schoolchildren in the conditions of joining of different-aged children in complete set classes. Characteristics of inter subject integrity of content of various educational subjects and object spheres. On the bases of the results of the experimental work expediency of integrity definite themes and units of various school subjects is grounded. A positive tendency of influence of integral (education) teaching on the forming cognitive universal educational actions of junior school children in the conditions of small school is shown.

**Keywords**—*between subjectal integration (intradisciplinary), cognitive universal educational actions, integrated teaching, inter-subjectal integration (interdisciplinary integration), small school*

## I. INTRODUCTION

At different stages of the development of education, the problems of integration and differentiation of the content of education were given different meanings. In recent decades, the integration of educational content is seen as an objective necessity, contributing to the formation of a holistic personality.

According to the curriculum, the list of study subjects and the number of weekly primary school hours are not the same. This dictates the need for the simultaneous conduct in the small school of diverse subjects for students of two or several classes, which contributes to the interdisciplinary integration of the content of educational material.

In most cases, when conducting one-subject and one topical lessons in classrooms, it is necessary to carry out intra-subject integration.

Analysis of practical experience shows that many small-sized elementary school teachers, when conducting multi-disciplinary lessons in two or several classes, duplicate the scheme of a mainly combined

lesson with separate topics and tasks for each class, ignoring the possibility of integrating the content of these subjects [1].

The federal state standard of primary general education, introduced into the practice of general educational organizations since 2011, provides for the implementation of universal educational activities that should be formed among younger students, regardless of the type of organization and its location.

Despite the discussion of the problem of forming cognitive universal educational actions of younger schoolchildren in pedagogical theory and practice, the indicated problem in relation to the conditions of a small school remains very relevant and poorly developed.

## II. RESULTS AND DISCUSSION

In recent years, the integrated knowledge assimilation has become one of the levers of increasing the efficiency of assimilation of educational material by younger students, which contributes to a holistic picture of the world. The integration of educational material in a lesson from different subject areas can be called the highest degree of interdisciplinary communication.

The basis of integrated learning is a system of lessons, the purpose of which is to combine knowledge from different academic subjects and subject areas and reveal their essence through the organization of synthesized students' perception of the material being studied. A teacher who works in ordinary primary schools of a comprehensive school needs to create special conditions for the integrated presentation of the material being studied. A teacher of small school on different subjects in the complete set classes must be well prepared for an integrated lesson, in which information from different areas of knowledge is widely used and intersubjective communication is carried out deeply.

The development of the problem of integrating the content of education in the history of its formation is connected with the intensive philosophical elaboration of the problem of the integration of scientific knowledge. Any phenomenon of the world is multifaceted and requires study from the point of view of various sciences. The interrelation and mutual influence of the sciences on each other is an objective regularity arising from the very nature of the world around us.

The period of the initial stage of integration of sciences is reflected in didactics in the development of connections between individual subjects within the framework of general cycles of disciplines. However, the level of understanding of the problem that existed at that time did not satisfy the representatives of advanced pedagogical thought. P.P. Blonsky wrote that it was necessary to deal not only with analysis, but also with folding.

K.D. Ushinsky made the first attempt at a theoretical study of certain aspects of this problem. In particular, in order to identify the psychological basis of the interrelationship of various subjects, he proposed the classification of these connections according to the type of associations that emerge by opposition, by similarity, by time order, development, etc. K.D. Ushinsky understood the system of knowledge that students should form as organically interconnected common knowledge about the world. He noted that only a system that emerges from the very essence of objects gives us complete power over our knowledge, and incoherent knowledge is useless and wears out children's memory.

Scientists who consider problems with didactics constantly underline the idea of the need to establish integrated links between the elements of the educational content system. M.N. Skatkin draws attention to the fact that the trend of differentiation of science is reflected in the subject structure of the curriculum, and the synthetic aspect in the content of education is not sufficiently represented. The development of this problem in this vein of general education is characterized by the study of connections between academic subjects in the framework of individual cycles of disciplines.

G.I. Baturin, G.I. Belenky, A.A. Kiryushkina, P.G. Kulagin, V.N. Maksimova, Yu.A. Samarin, N.F. Fedorets made a significant contribution to the study of ways to implement the relationship between academic subjects.

Yu.K. Babansky paid much attention in his works to optimize the learning process. Psychological research B.G. Ananyeva, V.V. Davydov, A.N. Leontiev on the application of the activity approach to professional pedagogical activity also prompted an integrated review of the pedagogical process. The works of such scientists as N.A. Menchinskaya, S.L. Rubinstein, N.F. Talyzina, and D.B. Elkonin played an important role. The principle of the relationship between the theory and practice of education, the concept of intersubject connections and integration in

education was considered by Ya.A. Komensky, K.D. Ushinsky, S.I. Arkhangelskaya, M.N. Berulava, B.C. Gotta and others. M.I. Zaikin, A.E. Kondratenkov, G.F. Suvorov, A.M. Tsirulnikov studied the didactic foundations of the organization of the educational process in the countryside.

Integration processes in education is a rather complex, complex and multilateral phenomenon in terms of its manifestation, which requires an analysis of the psychological and pedagogical positions. The main goal of learning on an integrative basis is to give a holistic view of the world around us, which is associated with an increase in mental activity of students. At the same time, the definition of the psychophysiological basis for the integration of knowledge, a clear identification of the actual features of the development in childhood of the basic mental processes is very important.

It is established that the psychophysiological substantiation of the mechanism for mastering knowledge and the process of their integration is possible based on two psychological concepts - the theory of the gradual formation of mental actions (P.Ya. Halperin, A.N. Leontyev, N.F. Talyzina) and the associative reflex nature of mental activity (E.N. Kabanova-Meller, N.A. Menchinskaya, Yu.A. Samarin).

In the concept of N.F. Talyzina, a mechanism for the formation of new knowledge is explained by the integration of actions consistently performed by the student (action with an object in a material form, action as an external speech activity, external speech about oneself, internal speech as an act of thought); objective information from the outside world becomes the property of the student's consciousness.

Psychologists call integration ties that form between sections of a school subject, course, reflecting causal, temporal, quantitative connections, when there is a wide use of knowledge within the school subject under study, intra-system associations providing knowledge of holistic knowledge systems.

Available numerous psychological and pedagogical studies reveal certain aspects of the problem of integration and show its complex nature.

The idea of integrated learning requires the implementation of the integrity of the image of the world, selection of such educational content that will help the child to retain and recreate a complete picture of the world in the unity of all its components, ensure their awareness of the various connections between objects and phenomena of the surrounding world, and ensure the formation of the ability to see one subject with different sides. This completely restores the natural process of cognition of the world around students. Cognitive activity of the child is possible only where certain conditions for its development are created. Integration of content, methods and various forms of education plays a huge role in this.

This process in the practice of teachers is carried out at various levels of integration. Since most of the

changes in pedagogical activity lie in the direction of pedagogical technologies, we consider it necessary to dwell on the analysis of the trends that have emerged recently in the modern primary school.

V.V. Davydov [2] notes that the implementation of training tasks takes place through training activities. Learning actions involve the adoption or self-setting of a learning task in order to detect some common relationship of the studied subject, to simulate the selected relationship in the subject, graphic, and also in sign form, to transform the model of this relationship to study its properties in a "pure" form, solved in a general way, control over the implementation of previous actions, assessment of mastering the general method as a result of solving a learning task. All this underlies the formation of cognitive universal educational actions.

"Analyzing the problems of the formation of cognitive educational institutions of younger schoolchildren, it can be said that a large amount of theoretical material has been developed that can serve as the basis for the work of school teachers to solve this problem. Despite this, there is the problem of practical introduction of knowledge into the school's work" [3].

It is known that there are different approaches to the definition of types of integration. The main ones are intra-subject and interdisciplinary integration. Intra-subject integration is often called the first level of integration.

An example of the first level is the systematization of knowledge within a particular discipline - the transition from scattered facts to their system in the process of opening a new law, clarifying the picture of the world. The integration of this level is inter-subjectal; it is aimed at "pressing" the material into large blocks, which ultimately leads to a change in the structure of the content of the discipline. In this sense, the integrated content is "informationally more capacious and aimed at developing the ability to think in information-capacious categories" (V.T. Fomenko).

In elementary school, the content can have a different structure of presentation, where individual knowledge and its elements are "linked" among themselves in various ways. I.P. Podlasy distinguishes four types of structure: linear, concentric, spiral, and mixed.

A spiral structure based on the principle of concentricity is characteristic of intra-subject integration. Knowledge of the value of such an organization can be carried out either from the particular (details) to the general (whole) or from the general to the particular. The content is gradually enriched by new information, links and dependencies. The peculiarity of this form is that students, not forgetting the original problem, expand and deepen the knowledge associated with it.

Interdisciplinary integration is called the second level of integration. The logical connection of the educational content of various academic subjects is carried out in it. It manifests itself in the use of laws,

theories, methods of one academic discipline in the study of another. The systematization of content carried out in such an integration leads to such a cognitive result as the formation of a complete picture of the world in the minds of students, which leads to the emergence of a qualitatively new type of knowledge that finds expression in general scientific concepts, categories and approaches. Interdisciplinary integration significantly enriches intradisciplinary.

School practice and research of scientists (A.Ya. Danilyuk, V.T. Fomenko, K.Yu. Kolesina, O.G. Gilyazova, A.G. Kuznetsova, etc.) show that the content of educational material can be built on the basis of different approaches.

"Due to the fact that the priority direction of the new educational standards is the realization of the developing potential of general secondary education, ensuring the development of universal learning activities becomes an urgent task as the psychological component of the fundamental core of education, along with the traditional presentation of the subject content of specific disciplines" [4].

The study of the fundamental positions of the concept of development of universal educational actions of younger schoolchildren (A.G. Asmolov, G.V. Burmenskaya, I.A. Volodarskaya, O.A. Karabanova, N.G. Salmina, S.V. Molchanov), compiled on the basis of the system-activity approach shows that the formation of cognitive learning activities is the most important task of the modern education system. This provides the ability to learn, the ability to self-development and self-improvement of primary school students in conjunction with other methods of universal learning action. At the same time, they note that knowledge and skills are considered as derived from the respective types of targeted actions.

In elementary school, interdisciplinary communication is established on the composition of scientific knowledge (factual, conceptual, specific). Interdisciplinary connections (at the level of facts), for example, are established in the process of getting acquainted with the numerous facts of symmetry in the structure of the bodies of nature. For example, the theme "Symmetry of bodies" is studied in a mathematics lesson. The natural history lesson "Autumn has come" contains a demonstration of a photograph, a herbarium of leaves, plants (maple, ash, etc.) and the lesson discusses the questions: "What is the beauty of leaves? What is the significance of symmetry? What is symmetrical?" It helps students to see and understand that the facts of symmetry take place not only in mathematics, but also in environmental studies, and in the visual arts, and in manufacturing technology.

Interdisciplinary integration is of particular importance for the formation of natural science concepts. So, children get acquainted with the concept of "deciduous", "coniferous" trees in the lesson of the world around. In the process of studying fine art, this concept is fixed in the drawing of the branches of

deciduous and coniferous trees. The concept is not just duplicated, it deepens.

Intersubject integration allows eliminating repetitions in different academic subjects, deepening the study of material without additional time costs, realizing systematic mutual consistency, and encouraging students to apply knowledge in everyday life.

The conditions of small school create certain prerequisites for the complex formation of general educational or universal educational skills of younger schoolchildren. This creates the conditions for the integrated learning of knowledge as a result of the integration of skills and abilities of educational and cognitive activity.

The specificity of the organization of the educational process of a small school dictates the need to combine different subjects in one lesson. Each lesson, regardless of the topic, acquires a coloring of integration, since the teacher has to integrate not only in proximity to topics, but also take into account that these topics correspond to the age characteristics of children, the level of development of their cognitive abilities. It is necessary to teach children to see the connection between the phenomena of nature and everyday life.

It should be noted that a very important condition for integration, as indicated by E.Yu. Sukharevskaya, is the construction of educational material based on the subordination of its single purpose and function [5]. It is preferable to conduct integrated education in primary schools based on the implementation of intra-subject and interdisciplinary connections. With the integrated education of younger schoolchildren, it is possible to show the world in all its diversity with the involvement of various knowledge: literature, music, painting, which significantly contributes to the emotional development of the child's personality and the formation of his creative thinking. The method of organizing an integrated lesson ensures the activity of a teacher and a student at the level of subject relations, as a result of which there are opportunities for joint creativity and self-development of participants in the educational process.

Our experimental work on the formation of cognitive skills of younger schoolchildren in the conditions of primary small schools of the Center for the organization of activities of educational institutions of the distant-pasture animal husbandry of the Republic of Dagestan showed that the integrated lessons have great potential for implementing interdisciplinary connections.

The most successful for integration in the primary small school were such subjects as reading - Russian, reading - environmental studies, reading - visual arts - music, environmental studies - handicraft, mathematics. In this case, the number of weekly hours allotted by the curriculum to study these subjects was taken into account. The most expedient was the development and testing of the system of integrated

lessons, the psychological and methodological basis of which was the establishment of connections between concepts common to a number of subjects.

Meanwhile, integrated lessons have significant opportunities for the development of general educational skills that are the basis of universal learning activities. It should be noted that the level of preparedness of students of a small school for the integrated teaching of knowledge is low in most cases.

The organization of the educational process in new innovative technologies and the formation of universal learning activities for younger students require the teacher of a small school to improve their practical activities by searching for new value priorities in determining the goals and content, forms and methods of constructing students' learning activities.

One of the new directions of methodical updating of lessons in primary school is the construction of integrated lessons and their implementation based on the integration of educational material with several subjects, united around one topic. This interdisciplinary form of the educational process relies mainly on the theory of knowledge and the understanding that the search for knowledge is the best way to interdisciplinary research.

The purpose of such lessons, built on the integration of content, should be a comprehensive study of a particular object, phenomenon, and meaningful perception of the environment, bringing knowledge into a certain system, encouraging students' imagination and interest, and developing a positive-emotional mood. Attracting interesting material provides great opportunities to learn a particular phenomenon, a concept from different sides, to achieve the integrity of knowledge, because the younger student perceives the world around him holistically. For the younger student, there are not the names of subjects - Russian language, mathematics, environmental studies, music, etc., but there is a variety of objects of the surrounding world, their sounds, colors and sizes.

Our analysis of existing programs for elementary schools in different subjects of the curriculum suggests that they fully provide opportunities for the effective use of the process of integration of the content of education and, as a consequence, the formation of integrated knowledge of younger students.

Lessons, including interdisciplinary knowledge, contribute to the formation of general educational skills, if the following didactic conditions are met: the inclusion of integrated lessons in thematic and lesson plans based on content coordination, the specification of learning tasks using integrated knowledge, the consistent formation of learning activities in the classroom with common content, rational use of a variety of tools that contribute to enhancing pupils' cognitive activity. Integrated knowledge can be included in the lesson as a fragment, a separate stage throughout the lesson. There is a transfer and generalization of knowledge, mental processes of

analysis and synthesis are carried out, “complexes of facts” are formed as a stage in the development of general subject concepts.

In the integrated lesson, the didactic tasks of two or more school subjects are solved. In the preparation and conduct of such a lesson to more effectively develop general educational skills, the following requirements for their planning and organization should be observed.

– Firstly, it is necessary to get acquainted with the psychological and didactic basics of the course of integration processes in the content of education;

– Secondly, to single out similar or having common aspects topics in the program for each school subject to be merged;

– Thirdly, to determine the relationship between input knowledge elements in these topics.

In addition, the sequence of studying themes changes, the main and accompanying goals in each such lesson are highlighted, the basic training skills that are formed in the lesson are thought out.

The structure of these lessons requires special clarity and harmony, thoughtfulness and logical consistency, the relationship of the studied material in various subjects at all stages of educational activity. This is successfully achieved through a more compact, concentrated and clear use of educational material of the working program, and in addition, by connecting some modern ways of organizing the educational process.

In accordance with the logic of the development of the child's cognitive abilities, education in elementary school should begin with a holistic integrated course, due to the fact that children of this age have a synthetic perception of the world. In the course of its activities, the child learns social experience; he has formed certain personal qualities.

Integrated lessons in a small school are of particular importance. Each lesson, regardless of the topic, acquires a coloring of integration. After all, the teacher has to integrate not only in proximity of topics, but also so that these topics correspond to the age characteristics of children, the level of development of their cognitive abilities. Children need to be taught to see the connection between natural phenomena and everyday life.

The idea of integration in education has recently become a subject of discussion in connection with the differentiation and individualization of education.

It should be noted that the integration of learning is aimed at laying a holistic view of nature and society and shaping the students' own attitude towards the laws of their development. It is important for the student to look at the object or phenomenon from different angles.

Integration links between objects is a process of convergence and connection of various sciences. In the process of introducing the standard of primary general

education, it is necessary to use, develop and introduce intra- and interdisciplinary communications more often as a zone of the nearest development of a child for the purpose of further gradual and careful use of integration of school subjects.

In our opinion, integrated lessons should meet the following requirements. First of all, such a lesson should give the child a wide variety of knowledge. In the course of such a lesson, the teacher should increase the cognitive interest of schoolchildren, he should intensify the mental activity of the students, and finally, the children should show creative ability and intelligence. Such lessons cannot be conducted often, as they lose their novelty and interest. In addition, not all topics and sections of the primary school curriculum can and should be integrated.

An integrated lesson is the living creativity of a teacher and students. It is very important to proceed from the integration of individual parties in the study of concepts into a single whole, ensuring that students of the small school are mastered with cognitive activities to deepen the understanding of the material being studied and to form cognitive universal educational skills.

It should be noted that a very important condition for integration, as indicated in scientific research, is the construction of the material based on the subordination of its single goal and function. It is preferable to conduct integrated education in primary schools based on the implementation of intra-subject and interdisciplinary connections.

In the process of organizing integrated education for younger students, it is possible to show the world in all its diversity with the involvement of various knowledge: literature, music and painting. This contributes to the emotional development of the child's personality and the formation of his creative thinking. The method of integrated lesson ensures the activity of a teacher and a student at the level of subject relations, as a result of which there are opportunities for joint creativity and self-development of participants in the educational process.

Such a restructuring of the learning process on the basis of ongoing interdisciplinary relationships affects its performance: students' knowledge acquires the qualities of a system, their skills become generalized, complex, the worldview of the students' cognitive interests is greatly enhanced, and cognitive universal learning activities that underlie personality development are more effectively formed.

The perception of compulsory with integrated learning should grow into the comprehension and understanding of what was studied, which is carried out by primary and largely generalized establishing links between phenomena and processes of investing in their structure, composition of purpose, revealing the reasons for phenomena or events studied by students, interpreting the content of the text, the meaning of individual of words. Comprehension of the studied material is characterized by a deeper relationship to the

studied one, beliefs are born, and cognitive universal educational actions are formed and developed. As a result, students deeply comprehend the material being studied and confidently master it.

Comprehension of integrated knowledge directly develops into the process of their generalization, in the course of which the general essential features of the subject, the phenomena of reality, and the relevant subjects of study are identified and combined. In the selection of the main, essential in educational information manifests itself in the process of integrated learning.

Small primary schools function in the specific conditions of a rural environment and their organizational and pedagogical structure has a direct influence on the formation of cognitive learning skills of younger schoolchildren and on the success of the educational process.

Our observations show that the learning effectiveness of independent work organized in an elementary small school, including integrated lessons, increases significantly if the teacher deliberately undertakes work to shape the learning activities of students and develop their skills and skills of the school pile. It should be noted that a reasonably organized independent work can be a very important factor contributing to the solution of this responsible task. The first and most important of these skills can be identified readiness to understand the learning task. This means that you have a clear idea of what skills and knowledge you need to master in order to accomplish any particular task. During the period of training in primary school, each student must master a number of general educational skills, without which the corresponding universal educational activities cannot be formed.

From the first days of entering the school, schoolchildren face a completely different task associated with a change in the main type of activity. If, before school, the main activity of children is play activity, then at school the main activity is learning activity. Therefore, the formation of cognitive learning skills becomes one of the primary tasks of younger students. To do this, first-graders must consciously read aloud small familiar and unfamiliar texts in syllables with the transition to reading with whole words; correctly distinguish the stress of a syllable. The pace of reading them out loud should be 25-30 words per minute. They must have the skills of coherent rhythmic spelling of letters and compounds in words, writing off words and sentences from patterns. They must learn to write dictation words, the spelling of which does not differ from pronunciation. The ability to count objects within 20, as well as finding the values of numerical expressions in 1-2 steps within 10 is also the norm for them.

The formation of these basic and some other skills is obligatory for first-graders of schoolchildren. The formation of such skills is facilitated by the teacher's explanations of how to perform a particular task and the use of memos, instructions given in textbooks.

Such prescriptions and memos can be procured by the teacher of a small school and updated from year to year, taking into account the intellectual and sensory development of children of the corresponding complete set classes.

For the development of the needs and interest of schoolchildren in mastering complex knowledge, the methodological techniques used by the teacher in conducting integrated lessons are of great importance. This is a demonstration of visual aids, the use of fiction, musical works, technical teaching aids, attraction of vivid examples and facts from the surrounding life to the presentation of the material, the creation of problematic situations causing contradictions between newly emerging cognitive tasks and insufficient knowledge to solve them.

It must be emphasized that one of the main problems of integrated lessons is the teacher's understanding and consideration of the characteristics of each individual child. In integrated lessons, the teacher needs to combine the individual elements into a single unit so that each child can understand the essence of the material being studied.

It is equally important that these lessons in the conditions of a small school should develop the speech of children. This is enrichment, activation of the dictionary, the development of coherent speech. Integrated lessons help students familiarize themselves with the world around them. Everyone knows that today, more than ever, all efforts should be directed to improving the quality of students' knowledge and to achieve high results. The quality of knowledge depends on the characteristics of the cognitive activity in which it is included, and on the breadth of incorporation of this knowledge into various types of educational activities of children in the entire complete set class.

The formation of universal educational actions of students is not the prerogative of individual subjects. The skills of reading and writing are developed and improved primarily in the classes of literary reading, Russian and native languages. However, it is necessary to realize that these skills should be formed, develop in a situation of lessons on any academic subject. The score implies pupils' possession of verbal and written computation techniques; this is correctness, awareness, rationality, generality, strength, fluency of the computational skills of children.

Reading, writing, counting can be distinguished as basic skills, since they are the basis for mastering all academic subjects and forming cognitive educational activities. The work on the formation of design skills contributes to the development of logical thinking, systematic and compact presentation of thoughts, as well as concentration of attention and more solid memorization of the material under study.

The characteristic features inherent in the structure of lessons in a small school that need to be considered when forming common school skills for younger students are the following.

The first and most important of them, in our opinion, is that students in two or three and four classes (in a one-year school) study under the guidance of one teacher at the same time in one classroom. Another important feature of the lesson in a small school, which comes directly from the first one, is the obligatory conduct of independent work in almost every lesson. Independent tasks are usually included in each stage of the lesson. However, independent work in these conditions is poorly managed, since in the process of its implementation, students are virtually deprived of the help of a teacher engaged in working with another class. These features lead to the fact that the lesson in a small school consists of the alternation of two distinct components of work - the work of students under the guidance of teachers and their independent activities.

This requires the teacher to strictly regulate study time and thorough preparation of all visual aids necessary for a particular lesson, notes, and tasks for independent work, samples of tasks performed either on a portable board or on previously prepared posters.

Without such a teacher's preparation for the lesson, the results of independent work, as well as the general educational skills and abilities of the students, will not reach the desired level. In addition, while some students whose learning skills are not formed at the minimum necessary level do not fulfill this task at all.

It is necessary to master the ability of schoolchildren to control their activities (along with other skills) for the successful organization of independent learning activities in conditions of a small school. It is necessary for its formation, first of all, to prepare for the lesson samples of the implementation of the relevant tasks, the presence of keys to exercises and tasks, so that during the lesson a mutual check of the completed tasks is organized.

The effectiveness of the organization and the formation of the relevant skills of independent work is achieved if the following basic requirements for its implementation are observed. First, the content and nature of independent work should be based on the content of a specific lesson and the purpose of the topic being studied; its implementation should be preceded by a thorough explanation of the task, methods and techniques of its implementation, as well as the sequence of actions.

Secondly, the activities of schoolchildren in the performance of tasks of independent work should be diverse, and the task itself should be feasible and present certain difficulties for students. Only in this case the cognitive activity will be formed and zones of proximal development will be involved. Only this kind of work will contribute to the formation of cognitive universal educational activities for pupils of small schools, provided for by the standard of primary general education.

In recent years, there has been a diversified search for opportunities to implement integration in the learning process.

In conditions of a small school, the basis for developing integrated lessons can be considered an integrative-thematic approach, justified by G.F. Fedorets. This means that the academic topic or section of the academic discipline, not a lesson, is a substantive, methodological and organizational unit of the learning process.

The basis of integration can be taken any lesson with its established structure and logic, to the conduct of which knowledge, the results of the analysis of concepts from the point of view of other sciences and other academic subjects are involved. For example, the groups of the concepts "winter", "frost", "cold", "blizzard" are considered at the lessons of reading, Russian, natural history, music, visual arts, but the lesson will be integrated, in which the knowledge acquired on other academic subjects. The integrated lesson itself remains integral, logically consistent, with the methodology of conducting, but at the same time becoming more creative, liberated.

The experience of studying the course "Environmental studies", which includes information from geography, biology, botany and other disciplines, shows that students of a small school can instill the basics of a holistic view of the surrounding natural world. In these lessons, students work easily and learn the intended learning material with interest.

The whole world around us appears to students as a whole. When studying it, it is necessary to know all the components that determine the structure and the connections between them. Using the integration of knowledge in this case allows you to select the components of the content of the subject, corresponding to a holistic view of phenomena and processes occurring in the environment. The integrated assimilation of environmental studies' knowledge determines the total impact of educational material on the minds of students, which ensures the formation of universal learning activities and, as a result, a positive learning outcome.

Integrated lessons require a small school teacher to have pedagogical tact and skill. The literacy level of younger schoolchildren directly depends on how often children read. For this, integrated reading and visual arts lessons, extra-curricular reading and music are very effective. Such lessons give a lot to improve the quality of expressive reading. However, all this should be carefully thought out, everything is done thoroughly with a high density of the lesson and the active participation of all students, who should direct their interest, emotions, and intellectual forces in the right direction. All this purposefully contributes to the formation of cognitive universal educational actions of younger schoolchildren.

The effectiveness of integration, in our opinion, depends on many factors. This is a combination of subjects and topics, the level of teacher training, including the selection of content, methods, work methods and others.

It should be noted that integration in elementary school should have, if one can say so, a quantitative character: "A little about everything." Pupils get more and more new ideas about concepts, systematically and constantly supplementing and expanding the range of existing knowledge. In the process of implementing integrated lessons, there are significant opportunities to develop the child's intelligence, which in traditional education is used at an insufficient level.

It is known that reading as a subject includes, in addition to literary texts, materials on history and environmental studies. Mathematics contains both arithmetic, geometric, and algebraic material. Such integration does not prevent the formation of universal educational activities; moreover, it is their guarantor.

Before conducting integrated lessons, a small school teacher must first analyze primary school programs in various academic subjects, then, it is necessary to identify the same or similar topics in integrable subjects and only then combine them from the position of the leading idea and leading positions.

When selecting materials for an integrated lesson in a small school, the teacher should be guided by the fact that the content of different subjects, combined in one topic, is not a simple sum of knowledge. It must be remembered that all the components included in it function as subsystems that provide a unified whole in this system.

In the field of interaction of the content of subjects, as in interdisciplinary connections, there is a field of interaction and active points that can provide a transition to a qualitatively new level of functioning of the integrated lesson as a system. In the situation of an integrated lesson, the teacher needs to review the methods and means of teaching, the forms of organizing children's learning activities, since the integration of knowledge implies a detailed elaboration of all the units of educational material included in the topic of this integrated lesson.

The joint activities of a teacher and students in a lesson in a small school contribute to the creation of creative situations that take the system to a new level of integrated knowledge. In an integrated lesson in a classroom, a combination of teaching methods of various subjects takes place, the realization of which is helped by the means and forms of organization of training. Individual, group and frontal forms with a constant combination with the independent work of students are appropriate; without which it is impossible to manage in a small school.

After analyzing various sources highlighting the problem of integrated learning in a small school, it can be said that in recent years there has been a diversified search for opportunities to implement integration in the learning process. Based on the fact that there is still no unambiguous understanding of the essence of integration, many authors dealing with this problem offer different versions of its solution. Despite the lack of a common understanding and a coherent approach to the problem, the integration process is a promising step

towards the modernization of Russian education, leading to the creation of substantial prerequisites in shaping a modern, holistic view of reality around us.

This is also confirmed by the positive results of the formation of cognitive universal educational activities obtained during the organization of integrated training by Dalgatov Dalgat Dzhavathanovich in Achichungul elementary school of Shedrinsk Secondary School, by Aidiyev Bariyat Mammayevna in Unchukatlinsky elementary school of Sangar Secondary School, Alisultanova Zagra Murtazaliyevna in the Novo-Atluhsкая elementary school of Hamzatyurtovskaya secondary school, Aliyeva Zemfira in Shagodinskо-Shitlibskaya secondary school and by other teachers.

### III. CONCLUSION

Having studied the essence of the emergence of the idea of integrated learning in the history of pedagogical thought, the current state of the problem of integrated knowledge delivery to younger schoolchildren in an ungraded school, it can be said that it has great potential to form cognitive universal educational actions that are of paramount importance in understanding and mastering program material.

For the successful formation of cognitive universal educational activities of younger schoolchildren studying in small schools, the organization of integrated learning material, which can be implemented in several directions, is of great importance. First of all, it is through the complete or partial merging of the educational material of different academic subjects. The second direction of such integration can be called the organization of comprehensive training and extracurricular activities. The third direction of this work can be implemented through the planned and maximum strengthening of interdisciplinary connections, which can be called "interdisciplinary immersion". We can also single out the fourth direction, which is connected with the use in the educational process of integrating curricula and the complete construction of the entire educational process on the ideas and principles of integration.

The results of the introduction of elements of integration in the education of younger schoolchildren in experimental small schools showed a higher level of formation of cognitive universal educational activities compared to students in the control classes.

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