

**THEORETICAL BASIS OF INTEGRATION OF TEACHING THE  
NATIVE LANGUAGE (UZBEK LANGUAGE) and MATHEMATICS  
IN PRIMARY EDUCATION**

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*Abstract: The general secondary education system provides for the formation of basic competencies in the student, along with scientific competencies. It consists of the formation of basic competencies for self-development, the ability to apply the acquired knowledge, skills and abilities in different situations, based on the knowledge acquired by the student through the subjects of the block of language and literature. In particular, it is necessary to develop the skills of applying the knowledge of the native language in the process of communication in the formation of communicative competencies, the formation of skills of independent, creative thinking, written and oral fluency in the state language and foreign languages.*

*There is a need for regular use of modern information and telecommunications tools, which expand the opportunities for the effective development of information competence in the teaching of science. It is recommended that students use mobile devices (phones, tablets, and other gadgets) to develop the skills of searching for, analyzing, and analyzing information about science from a variety of sources, and working with information while maintaining information security.*

**Keywords:** *native language, literature, integration, competence, intelligence, thinking, component, formation, concept, thinking, intelligence, labor, learning.*

The goal of the strategy for 2017–2021 is to fundamentally increase the effectiveness of the reforms, create conditions for the comprehensive and accelerated development of the state and society, implement priority directions for the modernization of the country and liberalize all spheres of life[4].

As noted in the document, a comprehensive analysis of the stage of independent development passed by Uzbekistan, as well as the changing world economy in the context of globalization, require the development and implementation of "radically new ideas and principles for the further sustainable and accelerated development of the country" [1].

The action strategy will be implemented in five stages, each of which provides for the approval of a separate annual State program for its implementation in accordance with the declared name of the year. The development of the social sphere, aimed at a consistent increase in employment and the implementation of targeted programs for the development of education, culture, science, literature, art and sports, and the improvement of state youth policy [3] .

In the resolution of the Government of the Republic of Uzbekistan. The goal of the strategy, designed for 2017–2021, is a radical increase in the effectiveness of the reforms, creation of conditions for the comprehensive and accelerated development of the state and society, implementation of priority directions for the modernization of the country and liberalization of all spheres of life. As noted in the document, a comprehensive analysis of the stage of independent development passed by Uzbekistan, as well as the changing world economy in the context of globalization, require the development and implementation of "radically new ideas and principles for the further sustainable and accelerated development of the country"[1].

The action strategy will be implemented in five stages, each of which provides for the approval of a separate annual State program for its implementation in accordance with the declared name of the year. The development of the social sphere, aimed at a consistent increase in employment and the implementation of targeted programs for the development of education, culture, science, literature, art and sports, and the improvement of state youth policy; “Development of the social sphere of the Republic of Uzbekistan” [6], the main directions of the development of education at school and approaches to learning are identified, which imply the orientation of instruction towards the formation of general intellectual, universal skills and methods of activity that have a practice-oriented orientation (competency-based approach to learning).

In determining the selection and location of the educational content of schoolchildren, the assessment of trends in the development of mathematical education is essential.

Mother tongue, literature, Uzbek (for schools with other languages of instruction), sister languages (Kazakh, Kyrgyz, Tajik, Turkmen), Russian (education in Russian and Uzbek) for schools with the language of instruction) covers the subjects and ensures their interconnectedness.

There are four main types of speaking activities that can be taught in a language through language teaching: listening comprehension, speaking, reading, and writing. to be able to independently exchange and express opinions in different speech situations that occur in the process of reading and work, in the family and in public places, to understand the material heard, as well as to receive information by reading written sources, to attend events The dynamics of acquiring communication skills in the form of expressing one's attitude.

The development of the spirituality of the younger generation is a close acquaintance with the rich history, national values, customs and literary and artistic heritage of the Uzbek people, the national and universal values formed on the basis of national traditions, holidays and customs. requires absorption.

This includes the study of concise and beautiful examples of Uzbek literature, important scenes of the historical and cultural life of the people, the creative heritage of the Uzbek people who have contributed to world national culture. Proper pronunciation and spelling of words and word forms studied in this process, grammatically correct word formation, rational choice of words and syntactically-methodologically correct Reasonable use of literary language is required to evaluate, compose sentences and determine the tone of speech.

In the primary and general secondary stages of continuing education in language learning, speech-communicative, grammatical and, general educational tasks are defined.

"Mother tongue" not only teaches lexical and grammatical norms, but also serves to develop the student's ability to listen to comprehension of texts in different disciplines, to read correctly, to apply orthoepic and orthographic norms. Special emphasis is placed on reading comprehension in native language classes for students to think logically, critically, and creatively. A student who has mastered the native language will be able to master other subjects satisfactorily. A student with perfect reading literacy develops logical, critical, creative thinking and the ability to apply what he or she has learned in life by reading texts learned in other subjects. One of the main tasks of the teacher is to adapt the practical tasks to work with texts that meet the requirements of the International Assessment Program (PISA, PIRLS), aimed at developing students' logical thinking and practical skills. This involves developing the skills of comprehension, analysis, critical thinking and communication.

Mother tongue science is the development of verbal (communicative) competence aimed at thinking as a student, understanding the opinions of others, expressing one's thoughts orally and in writing correctly and fluently in accordance with the conditions of speech; to develop students' practical knowledge of language construction (phonetics (orthoepy), vocabulary, word

structure, morphology, syntax, writing and spelling, punctuation, speech techniques, stylistic concepts).

Uzbek is taught as a second language in general secondary schools where other languages of instruction are used. The main focus of this subject is on the formation of oral and linguistic competence, which allows students to communicate freely orally and in writing in everyday life, socio-cultural life, specialties through the linguistic knowledge of the Uzbek language. This is done on the basis of ensuring that Speech competencies that develop the student's ability to apply the knowledge of the Uzbek language in the process of communication in order to work in everyday and professional fields, and linguistic competencies aimed at developing oral and written literacy in the Uzbek language. based on the acquired knowledge of the student, the formation of basic competencies for self-development, the ability to apply the acquired knowledge, skills and abilities in different situations.

The subject of reading (literature in the curriculum of primary grades of general secondary education) In addition to teaching, it serves to form in them a culture of reading and speaking, as well as the ability to think independently. Develop correct, fast, conscious, expressive reading skills in students by teaching reading; to awaken a love of reading, to raise them from the ordinary reader to the level of a deep thinker, a creative reader; expand their knowledge of the environment and existence through reading, enrich their worldview; upbringing in the spirit of ethics, aesthetics and diligence; develop speech and thinking; formation of elementary literary concepts in thinking; to increase student thinking. The successful solution of the educational task of reading lessons depends not only on the work on the text of the work of art in the classroom, but also on the life around the child, changes in nature, the ecological situation, socially useful work. should be related. Teaching a student to read is based on life experiences. Reading lessons are inextricably linked with music

and fine arts, which instill in children a love of beauty, nourish the sense of purity, sharpen the senses, sharpen the mind, enrich the imagination, cultivate aesthetic taste. should be. The interconnection of reading, music and fine arts lessons develops in children the skills of correct understanding and appreciation of works of art, serves to form the spiritual image of the student as a person .

The subjects in the language and literature block are taught in close connection with the social and concrete sciences. If a student is not able to think logically about the tasks in tables and diagrams outside of the text and approach them critically or creatively, it is a sign of a reading literacy defect.

### **The role and importance of the uzbek language subject in the education system**

Uzbek language education plays a leading role in the development of a harmoniously developed personality, the development of spiritual qualities and creative thinking, the understanding of national identity, the preservation and continuation of national traditions and heritage between generations.

Uzbek as the state language in the Republic of Uzbekistan as a state symbol unites the population around common national interests, as a language of thinking of speakers of this language directly connects human consciousness to the national basis, the interaction of nations and peoples living in this country. the means by which it is provided, the attitude towards it is the factor that determines the attitude and devotion to the Motherland. Teaching Uzbek in the education system serves to inculcate this idea and spirit.

Strengthening the position of the Uzbek language in education, science, economics and politics by raising its social prestige in society, teaching the Uzbek language in education with the determination of the direction of ensuring the status of the state language in their work system provides for the identification of work to be done in this direction.

#### **III. Objectives and tasks of the concept**

The purpose of this Concept is the main direction of teaching, the purpose,

Taking into account the latest achievements of linguistics and methodology based on the tasks, content, principles, effective selection of the Uzbek language in educational institutions, choosing from them the most suitable for the vital needs of students, in terms of practical effectiveness is to take it to a new level.

The tasks for the development of the Uzbek language teaching system in educational institutions are as follows:

reforming curricula on the basis of modern technologies and methods of teaching, ensuring continuity for all stages of education in accordance with the purpose and content of mother tongue education, and based on them textbooks, manuals and creation of a new generation of didactic materials;

increase the level of flexibility and intelligence of Uzbek language teachers, taking into account the abundance, speed and variability of educational information;

development of high-quality, popular information resources for students and teachers in the implementation of curriculum requirements, e-learning, distance learning and teaching;

to try to expand the audience of Uzbek language learners worldwide.

#### IV. Problems in teaching uzbek language

Uzbek language teaching has been systematic for many years

traditions (methodological approaches, creation of educational-methodical complexes, dissemination of best practices, educational practice) is a huge scientific and methodological resource of the general education system in the country. At the same time, there are a number of motivational, content-related, methodological and personnel issues that need to be addressed.

##### IV.1. Problems of motivational nature:

The value of the Uzbek language as the mother tongue and the state language in society,

the social need to study and teach him fully was neglected due to a lack of attention to his position and status. As a result, the attention of educators and

learners was distracted by unnecessary topics, which led to the Uzbek language teaching going out of its way to meet the vital needs; its promotion has also waned.

The formation of linguistic competence is a priority in the teaching of Uzbek as a mother tongue, and the improvement of oral and written skills is overshadowed by it. , disconnection from needs has led to the stagnation and deepening of this negative situation.

Didactic materials that reflect the richness and potential of our language, which increases the motivation of students at all stages of education to learn their native (state) language, taking into account their age, gender, national and local identity. the national methodological support system, which includes the complex, was not created in a centralized manner.

#### IV.2. Content issues:

##### Language, speech, reading and writing in preschool

There is a shortage of didactic materials (texts, audio, video, etc.) of a national nature for the formation of competencies.

It is not necessary to increase the vocabulary of students, to establish integration between the centers of activity in preschool educational institutions in the development of speaking skills.

The content of the current textbook "Mother (Uzbek) language" taught in general secondary schools is not systematically organized as a continuation of the book "Mother (Uzbek) language" in grades 1-4, terms, some grammar there is diversity in the approach to the rules, as well as the share of creative exercises in textbooks is very small, about 60 percent of which are scholastic exercises and assignments performed on a sample basis.

In teaching the native language at all levels of education, the main attention is paid to the theoretical knowledge of linguistics, ensuring the formation of practical speaking competencies (listening, speaking, reading, writing) in the student. failed. The emphasis on inculcating literary language norms in learners



has been largely focused on written speech, while the formation of cultural oral skills has been neglected.

#### IV.3. Problems of methodical nature:

Educators of preschool educational institutions in our national language there is almost no provision of relevant methodological guidelines, recommendations, and literature on how to develop children's speech and increase vocabulary in activities that improve, enrich, and culturalize speech activities based on.

The school did not provide students with teaching aids other than textbooks, and this is still the case. Educational and scientific methodological support of the Uzbek language (dictionaries and encyclopedias, teaching aids, multimedia, mobile applications and other didactic materials) is insufficiently developed. As a result, they did not have the experience of independent research to develop the skills to use teaching aids.

There is still an integral curriculum with a scientific and methodological basis, which is gradually developed in the classroom, taking into account how and to what extent the learning materials are mastered, taking into account the age, gender, national characteristics of students, in particular, physiological and psychological aspects. not created.

The mechanism of interdisciplinary integration in the teaching of Uzbek language is not developed at the required level. In other disciplines, the qualification requirements for the subjects do not specifically require the student to express his / her opinion (during the lesson) in the native language.

There are no qualification requirements for graduates in the study of the Uzbek language, science-based assessment criteria in accordance with the requirements of the approved state educational standards.

The latest pragmatic advances in linguodidactics and linguistics are also failing.

#### V. Main directions of implementation of the concept V.1. General issues.

The system and process of education in Uzbekistan, in what form and content

In all educational institutions of the country, the Uzbek language is considered as a sacred symbol of the state and is aimed at the formation of such an attitude.

Every employee of the education system of the country must have sufficient oral and written speaking competencies in the Uzbek language, and they are equally responsible for the formation of these competencies in their professional activities, as well as teachers of the Uzbek (native) language. uldir.

#### V.2. Fundamentals of updating language education

Speech of a practical nature of theoretical knowledge of linguistics in language education

focusing on and competing to work on competencies is a guiding principle.

Uzbek language education takes a creative and critical approach to foreign experience, draws on the rich experience in the history of our national pedagogy, and studies and generalizes the best practices of our country.

Strong integration of modern digital technologies and educational technologies will be provided, distance learning programs will be organized on the basis of modern information and communication technologies.

According to the results of methodological research, a new generation of textbooks will be created on the basis of curricula that provide a combination of mandatory and variable components, which are a priority for the development of independent creative abilities of students.

Methodological support for the theoretical and practical mastering of educational materials: auxiliary teaching aids (dictionaries, encyclopedias, collections of texts, multimedia, mobile applications, etc.) are created.

Existing problems in practice are solved based on the results of methodological research and scientific research.

The evaluation of control materials for the final state certification of the Uzbek language subject will be continued.

### V.3. Knowledge and skills to be acquired

Knowledge and skills acquired through teaching materials consists of:

- the national nature of language, the fact that it is a social phenomenon, its structure, functions and acquire the necessary knowledge of development;
- integrated speech activities (listening, reading, speaking, writing)
- mastery, knowledge of the correct use of speech skills in all areas of communication;
- oral and written literacy;
- to understand the relationship of the Uzbek language with other disciplines, to teach the native language
- to use the subjects taught in all educational institutions in the Uzbek language in scientific and practical activities with a deep understanding of the fact that the subjects are a means of learning and teaching;
- use of texts that reflect different aspects of social life, as well as those that take into account the age, gender and ethnocultural characteristics of students;
- use of information and communication tools and resources (printed and electronic dictionaries, translator programs, spelling control software, search engines, etc.);
- assessment of not only written but also oral speech of the graduate in the final state certification.

### V.4. Training, retraining and advanced training of teachers of Uzbek language and literature

The following are important in improving the quality and efficiency of Uzbek language teachers:

creation of an alternative system of training, retraining and advanced training of teachers of Uzbek language and literature in a new form and content;

to provide theoretical knowledge in the training and retraining and professional development of teachers, as well as to focus on the development of speech competencies and the level of professional training in their teaching;

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In addition to providing theoretical knowledge in the training and retraining and advanced training of teachers, the main focus is on the acquisition of speaking competencies and the level of professional training in their teaching; support, promotion, material and moral encouragement of teachers who set a special example;

develop and improve effective mechanisms for distance learning, advanced training and education using information and communication technologies;

attestation of teachers of Uzbek language and literature, establishment of a system for assessing the quality of their work based on the knowledge and competencies formed in the student;

Continuous preparation and delivery of teaching, methodological literature and didactic materials to help teachers of Uzbek language and literature to improve their professional skills.

An issue in the science of mathematics, for example, in order to complete assignments, it is necessary to be able to understand it. For example, assignments are expressed through sentences. And, of course, native language

science teaches speech construction. Listening comprehension of scientific texts, logical thinking, solving problems related to mathematical measurements and calculations, finding the best solution in the laboratory and other experiments, and making the right decisions are developed.

## **VI. Expected results from the implementation of the concept**

The following results are expected to be achieved by 2030 in the development of teaching the Uzbek (mother) language in general secondary education through the implementation of the tasks set out in the concept:

- ✓ the concept will be the basis for the requirements set out in the General Secondary Education Qualification Requirements (GTS);
- ✓ the implementation of the goals and objectives set out in the concept will have a positive impact on the intellectual development of students;
- ✓ the stages of teaching the Uzbek language, the content of education in the subject and the standards of qualification requirements are determined;
- ✓ full and correct use of the opportunities of the native language in general secondary education, using modern and innovative technologies;

A system of teaching the Uzbek (mother) language in educational institutions and assessing its level of knowledge will be established, and the prestige of the Uzbek (mother) language as the language of science will increase in scientific research in all disciplines.

Literature is the art of speech, so it is impossible to understand the beauty and power of literature without mastering the native language. The main task in the lessons of native language and literature is to constantly develop the student's interest and attention to the word, to explain to them the importance of the word, its place in various texts. Interdisciplinary communication can be compared to the development of thinking. Interdisciplinary learning develops the student's ability to observe events in a particular subject. This will give the student a clear idea of what is going on. When a teacher teaches native language, literature and Uzbek language in close connection with other disciplines, he /

she connects the new material in the process of narration, consolidation, as well as in the process of repetition and generalization. and uses texts on a variety of contexts that encourage the reader to make logical, analytical observations. The use of such texts teaches students to think creatively, to understand the text, and to enrich their knowledge and worldview.

Analysis of the traditional course of arithmetic and the course of mathematics of elementary school, conducted by A.M. Pyshkalo showed, "that they are built on two basic concepts of number and quantity, which are considered in the sequence" number quantity ". In the same scheme and course of mathematics in the experiment L.V. Zankova. Experimental course V.V. Davydov built according to the scheme "value ratio number." Moreover, the ratio refers to the number of measurements in the measured value. What causes researchers to question the sequence of study of concepts?

However, the measurement of a quantity during which a measure is postponed a certain number of times includes, as indicated by J. Piaget, two logical operations. The first is the separation process, which allows the child to understand that the whole consists of parts. The second is the replacement operation, which allows you to attach one part to another and in this way create a system of units. It is more difficult to divide a continuous whole into interchangeable units than to list them divided. Therefore, the dimension develops later than the concept of number.

Methodical classes, as the authors write, are, in fact, a system of didactic games, during which children explore problem situations, identify significant signs and relationships, make discoveries. Knowledge is not given in finished form, but through the process of independent discovery by a child of the features and properties of the studied objects and phenomena. A feature of the program is its focus on a deeper study of "objects and phenomena of the world: it prepares

children for the perception and elementary understanding of the dialectical unity of the world in its quantitative and qualitative relationships." The authors understand that the necessary condition for successful learning is the creation of a personality-oriented approach to the preschool child, the creation of an atmosphere of goodwill in the educational process.

The concept of lifelong education (pre-school and primary school) notes that "variability brought to the pre-school education an unjustified interest in subject-based learning", while "a balance of reproductive (reproducing the finished sample) and research activities, joint and independent forms of activity is required. As a result of the ability to follow the pattern, rule, and instruction that has developed in preschool age, the arbitrariness of mental processes and behavior is formed, and initiative in cognitive activity arises.

In any case, the program for the mathematical development of preschool children in the "School 2100 ..." system repeats at its core the content of the traditional methodology for the formation of elementary mathematical representations and organizes training on a visual and practical basis [5].

The tendency to master a larger number of supporting concepts in the selection of content does not seem to be random. After all, the more basic scientific concepts a student learns, the closer education is to what is called science. "It is possible that in the future the list of basic concepts will be modified or expanded," notes A.M. Breathing.

Features of the forms of children's thinking - visual-effective and visual-figurative - limit the possibility of successful teaching of mathematics in a fairly full form, however, the orientation of traditional teaching on the visual properties of objects is not at all necessary.

Educators identify intellectual development with mental development or the development of mental structures.

Psychologists believe that children discover the acquired knowledge and actions in cases that cause intellectual difficulties. The child cannot



complete the task in ways known to him; he must find a new way to complete the task. Such tasks are called problematic, and situations that cause the need for thinking processes, problematic situations.

Intellectual activity corresponds to a high level of human development. It forms the basis of his theoretical activity, including the use of complex systems of symbolic formations, and involves a fairly high level of abstraction from objects of activity [4].

The scientific development of a preschool child should be based on a system of successive small intellectual tasks aimed at the formation of certain intellectual skills.

For example, teaching the concept of “multitude” can be carried out on small intellectual tasks that form the following skills:

- select each element of the set;
- indicate the essential feature of an individual element of the set;
- highlight the essential feature of the set;
- indicate the generalizing word, the characteristic property of the set;
- compare the elements of the set by property (by color, shape, size ...);
- select one item and many items;
- we establish that the element belongs to the set;
- indicate an extra element that does not belong to the set;
- select a subset in the set;
- we break the set into classes, groups of objects, etc.

The selection, sequence, completeness of the content of small intellectual tasks is a serious problem.

In the process of research, intellectual tasks were identified in the sequence of studying support concepts: “a set of relationships on a set of correspondence, number of geometric figures, logic” [5].

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of the formation of basic competencies for self-development, the ability to apply the acquired knowledge, skills and abilities in different situations, based on the knowledge acquired by the student through the subjects of the block of language and literature. In particular, it is necessary to develop the skills of applying the knowledge of the native language in the process of communication in the formation of communicative competencies, the formation of skills of independent, creative thinking, written and oral fluency in the state language and foreign languages.

Conclusion. There is a need for regular use of modern information and telecommunications tools, which expand the opportunities for the effective development of information competence in the teaching of science. It is recommended that students use mobile devices (phones, tablets, and other gadgets) to develop the skills of searching for, analyzing, and analyzing information about science from a variety of sources, and working with information while maintaining information security.

Foreign language lesson has its own specificity, unlike other school subjects; the main objective of a foreign language lesson is the formation of intercultural communicative competence of learners. At the present moment the global aim of teaching foreign language is involvement to other culture and participation in dialogue of cultures. This aim is gained by the way of formation the ability to intercultural communication. The process of teaching foreign language is organized on the basis of communicative character tasks; teaching foreign language communication using all necessary for this work means is a distinctive feature of a foreign language lesson.

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