

Integrated Educational Technologies In The Development Of Cognitive Learning Activities In Russian Language Lessons

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Abstract: This article investigates the role and significance of modern integrated educational technologies in the development of cognitive learning activities in Russian language lessons. The research analyzes the integration of digital technologies, interactive methods, and traditional pedagogical approaches. The results indicate that integrated educational technologies enhance students' interest in language learning, activate cognitive processes, and improve learning outcomes. The article includes practical examples, empirical data, and pedagogical experiences.

Keywords: Cognitive activity, integrated technologies, Russian language education, digital tools, interactive methods, learning effectiveness, project-based learning, methodological work, case technology, integration.

Introduction: In the modern education system, the issue of developing cognitive learning activities holds particular significance. This process not only involves the acquisition of knowledge but also aims to shape students' abilities for independent thinking, analysis, problem-solving, and constructing new knowledge. Specifically, developing cognitive learning activities in Russian language lessons in primary school is considered a crucial factor in enhancing the effectiveness of foreign language learning.

The concept of cognitive learning activity is widely used in psychological and pedagogical sciences. The works of scholars such as L.S. Vygotsky, J. Piaget, and J. Bruner have thoroughly explored the role of cognitive processes in learning activities. Russian scholars I.A. Zimnyaya, A.A. Leontiev, and E.I. Passov have developed the main principles of the cognitive approach in teaching Russian as a foreign language.

Currently, an integrated approach is widely applied in the educational process. Integrated educational technologies combine various subjects, methods, and tools, allowing for a more effective organization of learning activities. The application of integrated educational technologies in developing cognitive learning activities in Russian language lessons in primary schools is particularly important, as it transforms language learning into a meaningful, goal-oriented, and life-related process.

The purpose of this article is to reveal the theoretical foundations for developing cognitive learning activities in Russian language lessons in primary schools and to outline practical ways of implementing integrated educational technologies. To achieve this goal, the following tasks have been set: to identify the essence and structural components of cognitive learning activities; to clarify the characteristics of integrated educational technologies; to analyze the methods of applying integrated technologies in developing cognitive learning activities in Russian language lessons and to develop practical recommendations.

The subject of the research is the process of developing cognitive learning activities in Russian language lessons in primary schools, while the object is the impact of integrated educational technologies on this process.

Analysis of related literature

The theory of cognitive learning activity began to actively develop in the second half of the 20th century. According to L.S. Vygotsky's cultural-historical theory, higher mental functions, including thought and speech, are formed through social interactions. [1] The concept of the zone of proximal development proposed by this scholar forms the basis for organizing cognitive learning activity in modern education. Vygotsky emphasized that the most effective development occurs when a student works at a level that is beyond their current capabilities but can be achieved with assistance.

J. Piaget developed stages of cognitive development in children within the framework of genetic epistemology. In his concept, the processes of assimilation and accommodation play a central role. According to Piaget, when a student acquires new knowledge, they either adapt it to existing cognitive structures (assimilation) or change those structures (accommodation). This idea is implemented in modern Russian language teaching, as students assimilate new language structures based on the structures of their native language.[2]

J. Bruner's theory of cognitive teaching emphasizes the active nature of knowledge acquisition. Bruner introduced the concept of "discovery learning," where students independently discover knowledge. This approach involves the use of inductive methods in Russian language lessons, encouraging students to draw independent conclusions about grammatical rules.[3]

In contemporary cognitive psychology, the works of scholars such as R. Sternberg, D. Perkins, and H. Gardner hold significant importance. Sternberg's triarchic theory of intelligence demonstrates the interconnection between analytical, creative, and practical intelligence. Gardner's theory of multiple intelligences requires attention to various cognitive abilities. In Russian language lessons, these theories enable the implementation of a differentiated approach tailored to students with different learning styles.[10,11]

The cognitive approach in language teaching became widespread in the late 20th century. S. Krashen's Input Hypothesis and theories of language acquisition revealed the role of cognitive processes in language learning.[14] M. Sharwood's interaction hypothesis emphasizes the importance of language use in the acquisition process, including problem-solving.

The theory of integrated educational technologies also has a long history. John Dewey proposed the concept of the "active school," suggesting the integration of various subjects based on real-life practice. Soviet educators such as V.V. Kraevsky, I.Ya. Lerner, and M.N. Skatkin developed the theory of intersubject connections. In modern times, STEAM education (Science, Technology, Engineering, Arts, Mathematics) demonstrates a new form of integration.[16]

The integrated approach in teaching Russian is implemented in various directions. On one hand, it involves the integration of different aspects of the language (phonetics, lexicon, grammar, types of speech); on the other hand, it connects Russian lessons with other subjects (literature, history, natural sciences). Additionally, this approach unites various

teaching methods and technologies: information and communication technologies, project methods, case methods, interactive methods, and others.

The analysis of literature indicates that the issues of developing cognitive learning activities and integrated educational technologies have been studied separately and sufficiently. However, the complex application of integrated technologies in developing cognitive learning activities in Russian language lessons has not been adequately addressed. Additionally, there is a need for practical recommendations that take into account the unique characteristics of the education system in Uzbekistan.

METHODS

This article employs a combination of theoretical and empirical research methods. The theoretical methods involved studying and analyzing psychological-pedagogical and methodological literature. This process included a systematic examination of documents, scientific works, and articles related to cognitive learning activities, integrated educational technologies, and the methodology of teaching Russian as a foreign language.

The systematic analysis method was used to identify the structural components of cognitive learning activities and their interrelations. The comparative-typological method allowed for the identification of common and distinct features among various integrated educational technologies. Through the modeling method, an integrated model for developing cognitive learning activities in Russian language lessons was created.

Empirical methods included observation, surveys, and the analysis of results from experimental trials. Observing lesson processes enabled the analysis of the methods used by teachers to develop cognitive learning activities. Surveys conducted among teachers and students helped identify the effectiveness and challenges of integrated technologies.

RESULTS AND DISCUSSION

The essence and structural components of cognitive learning activity

Cognitive learning activity is a process focused on knowledge acquisition, where the student independently assimilates, processes, and creates new knowledge. This process includes not only memorization and repetition of information but also understanding, analysis, synthesis, evaluation, and application. Benjamin Bloom's taxonomy distinguishes six levels of cognitive activity: knowledge, understanding, application, analysis, synthesis, and evaluation. In its modern version, these levels are

reframed as remembering, understanding, applying, analyzing, evaluating, and creating.

Cognitive learning activity in Russian language lessons has its own unique characteristics. Firstly, this activity is related to the formation of knowledge about the language system (phonetics, lexicon, grammar). Secondly, it includes the development of communicative skills (listening comprehension, speaking, reading, writing). Thirdly, cognitive activity in Russian language lessons is closely tied to the acquisition of cultural and sociolinguistic competencies.[4]

The main components of cognitive learning activity are as follows:

1. Motivational component: This component reflects the student's intrinsic desire for knowledge and language learning. Motivation can be intrinsic (internal) or extrinsic (external). Developing intrinsic motivation in Russian language lessons is one of the most important tasks. To achieve this, lessons must be interesting, relevant to real-life practice, and personally significant.

2. Operational component: This comprises cognitive operations such as perception, attention, memory, thinking, and imagination. In Russian language lessons, these operations manifest during the processes of receiving language material, focusing attention on it, memorizing, analyzing, and applying it in new contexts.

3. Reflective component: This refers to the ability to understand, evaluate, and monitor one's activities. Also known as metacognitive skills, this component enables students to manage their learning processes, choose strategies, and correct mistakes.

4. Creative component: This involves the ability to apply knowledge in new situations, solve problems in unconventional ways, and create new products. In Russian language lessons, the creative component is evident in the creative use of written and spoken language, playing with language tools, and producing their own texts.

The following Table 1 shows the components of cognitive learning activity and their manifestations in Russian language lessons:

Table 1
Components of cognitive learning activity and their manifestations in Russian language lessons

Component	Definition	Manifestations in Russian Language Lessons
Motivational	Intrinsic desire for knowledge	Interest in language learning, desire for communication, wish to understand culture
Operational	Set of cognitive operations	Listening comprehension, analyzing grammatical structures, memorizing new words
Reflective	Awareness of one's own activity	Identifying one's mistakes, evaluating learning strategies, monitoring progress
Creative	Ability to create new things	Creating original texts, working creatively with language tools, playing with language

Characteristics of integrated educational technologies

Integrated educational technologies are pedagogical processes organized on the basis of combining various educational elements (subjects, methods, forms, tools) into a unified system. The concept of integration comes from the Latin word "integratio," meaning "restoration" or "completion." In education, integration involves combining various components in such a way that a new quality and new educational outcomes emerge.[5]

There are different levels of integration:

Interdisciplinary connections: This is the simplest level of integration, where subjects refer to each other while maintaining their independence. For example, in a Russian language lesson, information from literature, history, and geography may be utilized.

Interdisciplinary integration: At this level, two or more subjects combine to study common topics. For instance, Russian language and literature lessons together explore the topic of "Russian classical

literature."

Transdisciplinarity: This is the highest level of integration, where the boundaries between subjects dissolve, and the educational material is organized around real-life problems. For example, knowledge from Russian language, biology, chemistry, and geography can be applied in the context of ecological issues.

Integrated educational technologies are effectively applied in Russian language lessons. Their main types include thematic integration, subject and language integration (CLIL), project-based learning, integration of information and communication technologies (ICT), integration with the arts, and case technologies.

In thematic integration, various aspects of the language (phonetics, lexicon, grammar, types of speech) are combined within a single theme. For example, when studying the topic of "Nature," students assimilate vocabulary related to nature description, read descriptive texts, write about nature, and describe it orally. At the same time, necessary grammatical structures (adjectives, adverbs, metaphors) are studied.

In the subject and language integration (CLIL) approach, the subject content is taught through the medium of Russian. For instance, physics, chemistry, or history lessons are conducted in Russian, which not only develops language skills but also enhances subject knowledge.

In project-based learning, students work on projects in Russian, conduct research, gather information, analyze it, and present their findings in Russian. For example, within the "Russian Culture" project, students gather information about Russian literature, art, and customs, and prepare presentations.

The integration of information and communication technologies (ICT) introduces digital tools, internet resources, educational software, and multimedia materials into Russian language lessons, making the classes more engaging while also teaching students to use the language in modern forms of communication.

Integration with the arts includes the use of elements from visual arts, music, and theater in Russian language lessons. For example, students describe artworks, listen to musical pieces and respond to them, engage in dramatization, and participate in role-playing games.[6]

Case technologies involve working with cases that describe real-life situations, analyzing them, and finding solutions. This activates all components of cognitive activity—analysis, synthesis, evaluation, and creativity.

The advantages of integrated educational technologies include ensuring the integrity of knowledge, demonstrating the connections between subjects, enhancing student motivation, making lessons interesting and meaningful, developing all components of cognitive activity, fostering metacognitive skills, cultivating life competencies, improving the ability to apply knowledge in practice, and increasing the effectiveness of teaching.

The application of integrated technologies to develop cognitive learning activities in Russian language lessons requires a comprehensive approach. Below we will examine the most effective methods.[7]

1. Thematic integration based on cognitive-communicative methodology

The cognitive-communicative methodology was developed by Russian scholar E.I. Passov and emphasizes the primacy of meaning in language teaching. At the center of this methodology are communicative situations and meaningful communication. The main principles of the methodology include: functionality (applying language in real communication), situationality (teaching in specific communicative situations), personal orientation (taking into account students' interests and needs), and cognitivity (developing thinking in the language learning process).

Thematic integration within this methodology framework unifies all aspects of language—phonetics, lexicon, grammar, types of speech (listening comprehension, speaking, reading, writing)—on the basis of a single thematic unit. This approach gives students the opportunity to master the language in a natural context and activates cognitive operations.

Example: Integrated Lesson on the Topic "Travel"

The main objective of the lesson is to develop students' communication skills in Russian on the topic of travel, while simultaneously activating cognitive operations—analysis, comparison, and evaluation. The lesson consists of the following stages:

Motivation stage. At the beginning of the lesson, students are shown photographs and video fragments depicting attractive places in various countries. Students talk about their dream trips, where they would like to go, and why they would choose those particular places. At this stage, the motivational component is activated, and students' personal experiences and interests are connected with the lesson content.

Lexical-grammatical stage. Basic vocabulary related to the travel topic is studied: путешествие (long journey), поездка (short trip), экскурсия (excursion),

достопримечательность (landmark), маршрут (route), билет (ticket), гостиница (hotel). Simultaneously, the usage rules of verbs of motion are analyzed: ехать-ездить (to go by transport), идти-ходить (to go on foot), лететь-летать (to fly). Students understand the difference between the determinate (unidirectional) and indeterminate (multidirectional) forms of these verbs. At this stage, the cognitive operations of analysis and comparison are actively working.[8]

Reading stage. Excerpts from famous Russian travelogues or contemporary blog posts are read. For example, fragments are selected from N.M. Karamzin's work "Russian Traveler" or from blog entries of contemporary travelers. Students analyze the text, extract key information, identify the author's attitude toward travel, and study the text structure. At this stage, analytical reading skills are developed.

Oral speech stage. Students work in small groups (4-5 people), planning their dream travel route. They discuss where to go, how many days to stay, what transport to use, what places to see. Groups give each other advice about travel and ask questions. At this stage, synthesis and creative activity are observed, as students apply their acquired knowledge in new communicative situations.[9]

Written speech stage. At the end of the lesson, students individually write their travel plan or imaginary travelogue. In their written work, they apply the learned vocabulary and grammatical constructions, observing text structure. At this stage, all cognitive components—motivation, cognitive operations, creativity—unite.

Reflection stage. At the end of the lesson, students evaluate their activities. They discuss what difficulties they encountered, what they learned new, what skills they developed. The teacher offers students self-assessment criteria and forms metacognitive skills.

In this lesson, all aspects of language are integrated within a thematic unit. At the same time, knowledge from geography (countries, cities, landmarks) and historical information are also applied. The cognitive-communicative approach gives students the opportunity to master the language in a meaningful context rather than through mechanical memorization.

2. Integration of subject and language based on clil technology

CLIL (Content and Language Integrated Learning) technology involves teaching subject content through language. This approach emerged in Europe in the 1990s and is now widely used throughout the world. The main principle of CLIL technology is that students

achieve two goals simultaneously: they master subject content and in the process develop language skills.[10]

The application of CLIL technology in Russian language lessons intensifies cognitive activity, because in the process of familiarizing themselves with subject concepts, students apply higher-level cognitive operations—analysis, synthesis, evaluation, and problem-solving. This technology enriches language teaching with real content and increases students' cognitive motivation.

Example: CLIL Lesson on the topic "Environmental problems"

A dual objective for the lesson is set: first, to develop knowledge about global and local environmental problems; second, to form skills in understanding popular science texts in Russian and expressing one's thoughts with supporting arguments.

Introduction stage. A video fragment in Russian about global warming is shown (ICT integration). The video reflects issues such as climate change, melting glaciers, and rising sea levels. Students extract key information from the video and take brief notes during viewing. This develops listening comprehension skills.

Working with scientific terminology. Basic terms related to ecology are studied: парниковый эффект (greenhouse effect), загрязнение окружающей среды (environmental pollution), биоразнообразие (biodiversity), возобновляемые источники энергии (renewable energy sources), углекислый газ (carbon dioxide). The structure of terms is analyzed, their etymology and original meaning are discussed. For example, the term "биоразнообразие" is shown to be divided into the components "био-" (life) and "разнообразие" (diversity).

Working with scientific data. Students are presented with statistical data reflecting various environmental problems—tables, graphs, diagrams. For example, information is provided about different countries' carbon dioxide emission volumes, amounts of plastic waste, and reduction in forest area. Students analyze this data, make comparisons, identify trends, and draw conclusions. At this stage, mathematical literacy also develops.[11]

Solving problem situations. Groups work on a specific problem: developing a project to improve the environmental situation in their city. They identify problems (air pollution, water shortage, waste issues), search for solutions (public transport, recycling plants, green spaces), and create an implementation plan. In this process, they apply listening comprehension, oral communication, compromise, and teamwork skills.

Presentation and debate. Each group presents its

project in Russian, prepares presentation slides, and rehearses speakers' speeches. Other groups ask questions, express critical opinions, and introduce their own suggestions. At this stage, monologic and dialogic speech, presentation skills, and debate skills are developed.

In this lesson, knowledge from biology, chemistry, and geography is closely connected with the Russian language. Students develop scientific thinking while also mastering skills in working with scientific texts in Russian, analyzing data, arguing their opinions, and making presentations. The CLIL approach makes language teaching intellectually rich and motivational.

3. Developing cognitive activity based on project-based learning technology

Project-based learning technology is a pedagogical approach aimed at organizing students' independent research activities. This technology was founded by American educator John Dewey, and at its center lies the principle of "learning by doing." Project-based learning technology develops all components of cognitive activity in a comprehensive manner—motivation, cognitive operations, reflection, and creativity.

The main characteristics of project work include: having a specific result (product), being long-term, having relevance (connection with learning objectives), independence (active role of students), collaboration (teamwork), and connection with practice (solving real problems).

Example: "The history of Russian language in Uzbekistan" project

The main task of the project is to study the development of the Russian language in Uzbekistan, its socio-cultural role, and to present the project results in Russian. The project consists of four main stages:

First stage: Planning (1 week). Students are divided into groups of 4-5 people. Each group selects one part of the project: historical aspect (the spread of Russian language in the 19th-20th centuries), role in education (in the school and higher education system), place in literature and culture (Tsarist, Soviet, and independence period literature), contemporary situation (current functions). Groups develop research questions, compile a list of research sources, and distribute tasks. The teacher works as a consultant.

Second stage: Conducting research (2-3 weeks). This is the most important and longest stage, where students work with various sources. They familiarize themselves with archival materials and historical documents in libraries, conduct searches through internet resources. They conduct interviews with specialists—historians,

philologists, and experienced Russian language teachers. They collect, analyze, systematize the found information, and extract important facts. At this stage, students actively apply listening comprehension skills (conducting interviews), reading (working with sources), and writing (taking notes, composing summaries).

Third stage: Formalizing results (1 week). Based on the collected materials, a presentation is prepared. Groups can choose to prepare a PowerPoint presentation, video clip, or poster. A lecture text is written, the speech is rehearsed, and a time schedule is set. Additional materials are prepared for answering questions. The teacher reviews preliminary presentations and offers suggestions for improvement.

Fourth stage: Defending the project. Projects are presented before the class or at a school-wide conference. Each group lectures for 10-15 minutes, then answers questions and participates in debates. The audience and teacher evaluate according to specific criteria (content interest, reliability of information, presentation quality, level of language proficiency, skill in answering questions). At the end of the project, peer and self-assessment are carried out.

The advantages of project-based learning technology in developing cognitive activity are numerous. First, it develops students' independence, initiative, and qualities of taking responsibility. Second, it activates all language skills—listening comprehension, speaking, reading, writing—in a comprehensive manner and in a natural context. Third, it develops higher levels of cognitive operations—analysis, synthesis, evaluation, creation (according to Bloom's taxonomy). Fourth, it forms important 21st-century skills such as collaborative work, time management, and sharing responsibility. Fifth, it develops metacognitive skills—planning one's activities, monitoring, evaluating, and analyzing errors.

4. ICT Integration and development of cognitive activity

Information and communication technologies (ICT) are an integral part of modern education. The application of ICT in Russian language lessons opens new opportunities for developing cognitive activity: features such as interactivity, multimedia, individualization, differentiation, and gamification make the learning process more effective and engaging.[12]

ICT tools used in Russian language lessons and their role in developing cognitive activity:

Interactive textbooks and mobile applications. Mobile applications such as Duolingo, Busuu, Memrise, and

LingQ make extensive use of gamification elements in learning vocabulary and grammar. They provide opportunities to collect points, pass levels, and compete with other students. This strengthens the motivational component; students perceive learning as a game, and the process becomes enjoyable and engaging.

Multimedia materials. Videos, audio materials, interactive exercises, and animations appeal to students' various perception channels—visual, auditory, kinesthetic. This suits students with different learning styles and increases the effectiveness of information retention.

Online platforms. Platforms such as Quizlet (for flashcards and tests), Kahoot (for interactive quizzes), Padlet (for collaborative work), and Mentimeter (for online surveys) make lessons interactive and engaging. For example, Kahoot quizzes transform the lesson into a game format; students compete in real time and see results immediately.

Virtual excursions. Through platforms like Google Arts & Culture and Yandex.Panoramas, it is possible to organize virtual trips to Russian museums, architectural monuments, and natural landscapes. This develops visual perception and cultural competence, introducing students directly to Russian culture.

Online dictionaries and corpora. Online dictionaries such as Multitran, Yandex.Dictionary, and Academic, as well as linguistic corpora like the Russian National Corpus, give students the opportunity to study language phenomena independently.

Example: Virtual Excursion "At the Hermitage Museum"

The lesson's objective is to develop skills in describing works of art in Russian, expressing one's impressions, and enriching knowledge about Russian culture.

Lesson procedure:

A virtual excursion to the Hermitage Museum in St. Petersburg is organized through the Google Arts & Culture platform. Students "walk" through the museum halls via computer or tablet and view various works of art up close.

Students view various works of art: Rembrandt's portraits, Leonardo da Vinci's "Madonna Litta," Henri Matisse's "Dance," ancient Roman and Greek sculptures. Each student selects one work they like and studies it in detail.

An exercise in describing the selected work begins. Students analyze aspects such as composition (передний план/foreground, задний план/background, центр композиции/center of composition), use of colors (тёплые тона/warm tones,

холодные оттенки/cool shades, контраст/contrast), subject (библейский сюжет/biblical scene, исторический портрет/historical portrait), emotions (грусть/sadness, радость/joy, торжественность/solemnity).

During the lesson, art vocabulary is studied: портрет (portrait), пейзаж (landscape), натюрморт (still life), жанровая картина (genre painting), живопись (painting), скульптура (sculpture), холст (canvas), краски (paints), оттенки (shades), мазок (brushstroke).

At the end, students write a short essay about their favorite work, describing the artwork, how it affected them, and why they chose that particular work.

In this lesson, ICT, art, and language teaching are integrated. Students master visual culture while also acquiring skills in creating descriptive texts, developing artistic thinking, and making aesthetic evaluations. The advantage of ICT is that it creates the opportunity to become acquainted with world-class museums without leaving Uzbekistan.

5. Case technology and higher levels of cognitive activity

Case technology is a pedagogical approach based on working with "cases" (situational tasks) that describe real-life situations. A case is a real or realistic problem situation with its details and context. This technology was developed at Harvard Business School in the mid-20th century and is now applied in all areas of education.[13]

Case technology activates higher levels of cognitive activity—analysis, evaluation, problem-solving, decision-making. According to Bloom's revised taxonomy, these are the highest cognitive levels. Instead of memorizing ready-made answers, students independently analyze problems, evaluate different solutions, and choose the most appropriate option.

Example: We present the communicative case "Writing to Friends"

Case scenario: Writing to Friends

You want to write to your friend. You want to ask about their health, what they did during summer vacation, and about an upcoming holiday.

Tasks for students:

1. Write a letter to your friend (a sample is provided).
2. Write the necessary questions in the letter (health, vacation, holiday).
3. Role play: communicate with your friend by phone (answering questions).

4. Problem situation: if your friend doesn't answer the questions you asked, how should you communicate with them?

Stages of working on the case:

1. Individual analysis stage: Students read the case and analyze the situation. They determine what questions should be in the letter.
2. Group discussion: Groups analyze the letter together and discuss what questions need to be written.
3. Role play stage: Students can play the roles of friends and communicate by phone. A real situation is created: the friend must answer the questions.
4. Reflection and generalization: After the game, what difficulties occurred and what needs attention are discussed. Students analyze their mistakes.

The significance of case technology in developing cognitive activity:

First, it teaches applying language in real-life situations; language goes beyond the classroom and gains practical significance. Second, it develops critical thinking: viewing situations from different angles, evaluating interests, foreseeing consequences. Third, it forms problem-solving strategies: gathering information, analyzing, comparing options, making decisions. Fourth, it develops communicative competence comprehensively: formal communication, careful word choice, expressing objections, questioning techniques. Fifth, it develops intercultural communication skills: understanding, respecting, and adapting to communication norms of other cultures.[14]

Each of the technologies reviewed above has its own unique opportunities for developing cognitive learning activity. A comparative analysis of them can be presented in Table 2 below:

Table 2
Comparative analysis of integrated technologies

Technology	Main purpose	Cognitive operations	Language skills	Duration	Student role
Cognitive-Communicative Method	Teaching language in meaningful context within a thematic unit	Analysis, comparison, synthesis, evaluation	All skills integrated	1-2 lessons	Active participant
CLIL Technology	Teaching subject content through language	Analysis, generalization, justification, conclusion	Understanding scientific texts, presentation	1-3 lessons	Researcher
Project-Based Technology	Organizing independent research activities	Planning, analysis, synthesis, evaluation, creation	All skills, metacognitive skills	3-4 weeks	Project executor
ICT Integration	Teaching through interactive, visual, and multimedia means	Perception, selection, comparison, evaluation	Contextual language skills	Ongoing	User
Case Technology	Solving problematic situations	Analysis, evaluation, decision-making	Oral communication, discussion	1-2 lessons	Problem solver

The comprehensive application of these technologies serves to develop all components of cognitive

activity—motivation, cognitive operations, metacognitive skills, and creativity.[15]

There are a number of difficulties in implementing integrated educational technologies into practice, and in Table 3 below we present these problems and their solutions:

Table 3
Challenges and solutions in implementing integrated educational technologies
[16]

Problem	Solutions
1. Lack of Teacher Preparedness	<ul style="list-style-type: none"> - Organize special training and seminars for teachers; - Conduct master classes; - Develop methodological guides and textbooks; - Monitor pedagogical practice and provide methodological advice; - Create opportunities for self-development through online courses and webinars.
2. Time Requirements for Lesson Preparation	<ul style="list-style-type: none"> - Encourage collaboration and division of work among teachers; - Create a database of ready-made methodological materials; - Prepare calendar-thematic plans in advance; - Utilize internet resources and Open Educational Resources (OER).
3. Insufficient Technical Support	<ul style="list-style-type: none"> - Gradually equip schools with technical devices; - Create mobile classrooms; - Apply the BYOD (Bring Your Own Device) principle; - Develop methods for working with offline materials.
4. Varying Levels of Student Preparedness	<ul style="list-style-type: none"> - Apply differentiated approaches; - Organize group work where stronger students assist weaker ones; - Use the scaffolding method; - Create individual learning trajectories.
5. Complexity of the Assessment System	<ul style="list-style-type: none"> - Implement a criterion-based assessment system; - Use portfolio methods; - Focus on formative assessment; - Promote self-assessment and peer assessment; - Develop rubrics.

We can provide the following practical recommendations for the effective application of integrated educational technologies to develop cognitive learning activity in Russian language lessons:

For teachers:

- Search for integration opportunities when planning lessons: Teachers should consider integrated approaches in every topic. For example, it is important to look for opportunities to connect Russian language learning with other subjects (mathematics, history), to implement ICT (information and communication technologies) tools, and to incorporate art.
- Develop tasks that cover all levels of cognitive operations: Use Bloom's taxonomy, namely prepare

tasks that cover students' levels of knowledge, comprehension, application, analysis, evaluation, and creation. These tasks activate them and develop their thinking abilities.

- Regularly apply the project method: Organizing at least one small project each quarter develops students' independence and creativity skills. Projects encourage them to work in teams, create, and solve problems.
- Use ICT tools wisely: Technology should be accepted not as a goal but as a means. It should be used to develop cognitive activity. For example, student activity can be increased with the help of interactive programs or multimedia materials.
- Teach metacognitive strategies: It is important

to teach students to understand, plan, and control the learning process. Allocating time for reflection at the end of each lesson helps them evaluate their own knowledge.

- **Apply formative assessment:** In addition to final assessments, constantly provide feedback to students during the lesson. This helps monitor their growth and identify their problems.
- **Take into account students' individual characteristics:** To implement a differentiated approach, it is necessary to know students well. It is important to consider each student's interests and abilities.
- **Exchange experience with colleagues:** Discussing new methods in the teaching team, observing each other's lessons, and developing joint projects is a good opportunity for exchanging experience.

For school administration:

- **Invest in teachers' professional development:** Create opportunities to participate in trainings, seminars, and conferences. This helps develop teachers' knowledge and skills.
- **Regularly update the technical base:** Providing ICT tools, internet connectivity, and multimedia materials is important for creating a modern educational environment.
- **Strengthen methodological work:** Organizing methodological associations, master classes, and open lessons develops teachers' methodological knowledge.
- **Empower teachers:** Giving freedom to try new methods and conduct experimental work develops teachers' creative thinking.
- **Create a reward system:** Encouraging teachers who apply innovative methods and achieve good results increases their activity.

For parents:

- **Show interest in children's learning process:** Supporting children in projects and homework increases their interest in learning.
- **Create opportunities for children to communicate in Russian:** Familiarizing them with Russian books, films, and cartoons develops children's language skills.
- **Support activities that develop cognitive activity:** Intellectual games, puzzles, and logical tasks activate children's thinking.
- **Cooperate with the school:** Staying in contact with teachers and monitoring children's progress encourages their learning.

In conclusion, developing cognitive learning activity in Russian language lessons is one of the main tasks of modern education. Cognitive learning activity includes not only knowledge acquisition but also the abilities to think independently, analyze, solve problems, and create new knowledge. This activity consists of motivational, operational, reflective, and creative components, all of which need to develop in a balanced manner.

Integrated educational technologies serve as an effective means of developing cognitive learning activity. Various integrated methods such as thematic integration, CLIL technology, project method, ICT integration, and case technology allow for unifying all aspects of language, ensuring the integrity of knowledge, and making the learning process meaningful and connected to life.

Implementing integrated technologies is associated with difficulties: lack of adequate teacher preparation, insufficient time and technical resources, complexity of the assessment system. However, these difficulties can be overcome through systematic work, teacher retraining, creating methodological support, and equipping schools with technical equipment.

The practical recommendations presented in the article can provide clear guidance for teachers, school administration, and parents on developing cognitive learning activity in Russian language lessons. The important thing is that integrated technologies should be applied not formally, but as a means serving the goal of developing cognitive activity.

In general conclusion, applying integrated educational technologies to develop cognitive learning activity in Russian language lessons is an effective approach that responds to the requirements of modern education and students' developmental needs. This approach serves not only to consolidate language knowledge but also to form independent thinking, creative approach, and life competencies. At the same time, this method awakens internal interest and motivation in students to learn the language, transforming them into active, conscious, and responsible subjects of learning activity.

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