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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**THE SYSTEM OF WORK USING THE PROJECT METHOD
IN IMPROVING THE EFFECTIVENESS OF TEACHING IN
PRIMARY CLASSES**

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GENERAL CHARACTERISTICS OF THE RESEARCH

Relevance and degree of development of research. In the contemporary period, reforms are being implemented in Azerbaijan in the fields of the structure and content of education. These reforms encompass broad areas of pedagogical activity. In 2008, subject curricula for grades I-IV were developed and officially approved. One of the main issues that concerns Azerbaijani education specialists, teachers, and research scholars is the improvement of the effectiveness of education. Today, the educational system faces important tasks such as ensuring the comprehensive development of children, fostering their creative abilities, forming self-education skills, and supporting their personal self-realization within social relations.

Under current conditions, the key concept of the pedagogical process and the central notion of instruction is development. All developed countries of the world have realized that implementing reforms in the education system is a necessity in the modern era. It is essential that the student becomes the central figure of the learning process and that students' cognitive activity remains the focus of teachers and researchers. Young people should be able to think independently, read critically, collect information, acquire new knowledge, skills, and professions in various fields, and be capable of independently improving their knowledge, since these activities will accompany them throughout their lives. Among the methods recorded in the arsenal of global and local pedagogical experience today, project-based learning is considered one of the main instructional methods.

The modernizing education system includes the following conditions:

- forming students' active, independent, and initiative-based positions in the learning process;
- developing general educational skills;
- regulating research, reflection, and self-assessment abilities;
- taking into account not only students' skills but also their ability to apply them in practical activities;
- developing students' emotional and cognitive interest in learning.

These forms of instruction should be based on the principle of connecting learning with real-life situations.

The modernization of education in Azerbaijan requires the search for new approaches in primary school education. The use of non-traditional forms of instruction implies the teacher's influence on the activities of each student and their involvement in active learning and practical activities. One of the most effective methods used in primary school teaching is project-based learning.

Project-based learning encompasses a set of instructional and cognitive methods that enable students to solve a particular problem through independent activity and through the presentation of the results obtained. If we speak of the project method as a new pedagogical technology, this technology involves the integration of research, inquiry, and problem-solving and represents, in essence, a collection of creative methods.

The popularity of the project method lies in its didactic essence, which promotes the development of students' creative abilities and their capacity to construct knowledge independently. This method teaches students to solve cognitive and practical problems, to position themselves correctly within the information space, and to analyze the information they obtain. It directs them to use the entire set of intellectual skills during various stages of cognitive, experimental, applied, and creative activities.

The primary goal of lessons in primary school is not only to accumulate knowledge, skills, and abilities but also to ensure the application of acquired knowledge, including the use of audiovisual tools. It also serves to develop students' communicative competence as well as their critical, creative, and applied thinking abilities. In this context, attention is given to knowledge, skills, habits, and moral qualities that facilitate and accelerate the acquisition of knowledge, intensify the learning process, teach students methods of independent work with educational materials and information, contribute to the formation of their competencies, and constitute the content of their cognitive activity.

Along with methods such as cooperative learning, discussions, problem-based learning, role-playing activities, and student

portfolios, the project method most fully reflects the fundamental principles of student-centered learning.

In psychology and pedagogy, approaches based on the principles of the humanistic orientation are widely applied. By its nature, the project method presupposes the differentiation of instruction and the necessity of paying attention to the learner's personality, needs, and capabilities. It is based on the principles of cooperation and the active involvement of students in the learning process.

The use of the project method in teaching English and *Knowledge of the world* enables students to use knowledge as a means of cognition, a tool for expressing their own ideas, and a way of perceiving and understanding the opinions of others. This approach shifts students' attention from the form of expression to the content, facilitating their engagement with the surrounding world of knowledge and thereby expanding the scope of their socio-cultural competence.

Regarding the current state of research on the topic, a number of local scholars have noted that Project-Based Learning (PBL) offers broad opportunities within the teaching and learning process. Researchers such as H.H. Ahmadov, N.E. Zeynalova, A.M. Nazarli, L. Mammadova.

Similarly, several international scholars have highlighted the extensive potential of Project-Based Learning within the educational process. Tomas J.V, Beyns L. Iosif F., Iakovos T., Muhammad N, M.Y. Bukharkina, E.S. Polat, T.E. Sakharova have stressed the crucial role of the project method in advancing teaching and learning to a qualitatively higher echelon.

In recent years, the project method has also been used as a way of organizing the cognitive process in education and as a means of mastering specific areas of practical or theoretical knowledge. The project method ensures the implementation of a competency-based, student-centered, systemic, and activity-oriented approach to teaching. The relevance of the problem, its theoretical and practical significance, and the existing contradictions in this field determined the choice of the research topic. Therefore, the research problem was formulated as "The System of Work on the Use of the Project

Method in Increasing the Effectiveness of Teaching in Primary School Classes.

The object and subject of the research. The object of the research constitutes the teaching and learning process in primary school classes. Concurrently, the subject of the research comprises the methodology of applying the project method in the teaching of Knowledge of the World and English within primary school classes.

The purpose and objectives of the research. In accordance with the topic, the objective of the research is to theoretically substantiate the pedagogical foundations for the development of students' communicative competence and comprehensive development through the application of the project method in primary school classes, and to develop a methodology for its experimental verification.

The following **objectives** are set for the research:

1. To generalize the main methodological and theoretical approaches to the application of the project method as an effective means of developing communicative competence in English language learning.

2. At the initial stage of the research, to investigate the characteristics of Knowledge of the World subject, its interactive content related to everyday life, and its orientation toward students' social and moral development.

3. To analyze the content of *Knowledge of the World* lessons.

4. To develop a lesson plan for Knowledge of the World classes for primary school teachers based on the project-based learning (PBL) method.

5. To regulate the sequence of students' cognitive activity when designing and implementing project activities.

6. To develop a system of tasks for preparing students for project-based activities.

7. To determine the conditions for using the project method in order to develop stable motivation, cognitive interest, and students' abilities for self-assessment and peer assessment (reflection).

8. To identify the characteristics of students' project activities during the implementation of projects in English and Knowledge of the World lessons, as well as within school-wide projects.

9. To test the effectiveness of this method through experimental instruction in primary school classes.

Research Methods

- **Theoretical research methods:** analysis, synthesis, comparison, generalization, and the study of scientific literature and regulatory documents.

- **Empirical (pedagogical) research methods:** observation, interviews, surveys, the study and generalization of school practice, and pedagogical experimentation.

- **Data processing methods:** mathematical and statistical analysis.

The main provisions for the defense:

1. The application of the project method in primary education is methodologically appropriate for increasing the effectiveness of instruction, fostering sustained learning motivation, and developing students' cognitive interests, critical thinking, and intellectual skills.

2. The use of the project method at the primary level of general education has a positive impact on the development of students' communication skills, collaboration abilities, independent learning, and problem-solving skills.

3. It is necessary to organize project-based activities in the classroom, taking into account students' age and individual characteristics.

4. Organizing project activities through the stages of planning, preparation, implementation, and presentation (defense), while also considering opportunities for assessment of outcomes, enhances their effectiveness.

Theoretical and practical significance of the research. A methodology for the organization and implementation of project-activities develop the communicative competence of primary school has been developed. The specific features of organizing students' project activities in English and Knowledge of the World lessons have been identified, and the practical opportunities for establishing interdisciplinary connections have been determined.

The theoretical and experimental foundations underlying the effectiveness of the project method at the primary stage of teaching

English and Knowledge of the World are elucidated and substantiated.

The theoretical significance of the research includes the following: 1. The theoretical basis for improving students' language competence at the initial stage of English learning through the use of the project method.

2. Determining the opportunities for using the project method in Knowledge of the World classes to improve motivation and develop students' cognitive interests, as well as their capacities for self-respect and mutual respect.

3. The clarification and systematization of the typology of projects.

4. The development of didactic materials for fostering the necessary skills and abilities required for project activities.

The practical significance of the research includes the following:

1. The effective teaching and organization of materials that teachers can use in the educational process through the project method will be possible.

2. The theoretical foundations of the dissertation, along with its practical recommendations, can be integrated into lectures and seminars on English language teaching methodology at pedagogical universities and into teacher training programs.

Approbation and result. The principal provisions of the dissertation have been reflected in 11 articles and 9 conference abstracts published in scientific journals of various universities of the Republic, as well as in collections issued abroad.

Name of the organization where the dissertation was performed. The work was performed at the Department of Psychology and Pedagogy of Azerbaijan University of Languages.

Overall length of the dissertation, including the separate volumes of its structural sections. The dissertation consists of an introduction, two chapters, seven sections, a conclusion, and a list of references.

MAIN CONTENT OF THE RESEARCH

In the **“Introduction”** of the dissertation, the relevance of the research is substantiated; the object and subject of the study, its aim and objectives, the research methods employed, the main theses submitted for defense, the scientific novelty of the study, its theoretical and practical significance, the name of the institution where the dissertation was carried out, as well as detailed information on the structure of the dissertation – including the volume of each section and the total volume indicated by symbols – are thoroughly presented.

The first chapter of the dissertation is entitled **“Theoretical aspects of the study of the Project method in the teaching process in primary school.”** The chapter consists of three paragraphs. The first paragraph, entitled ***“The emergence of the Project method as an instructional technology and its essence,”*** examines one of the main tasks of school education, which is the formation and development of students’ independence in organizing educational and cognitive activities. Naturally, the main priority is to reveal the overall potential of each student; however, this task may create certain difficulties if students are not given opportunities for independent activity.

The paragraph emphasizes that one of the creative forms of activity capable of ensuring a high level of motivation for learning is project methodology, which is based on an individual and activity-oriented approach to instruction. The project methodology presupposes the investigation and solution of a specific problem and follows a particular algorithm. The project method is therefore regarded as a means of achieving a didactic goal through the comprehensive elaboration of a problem.

Project methodology is a comprehensive teaching method that individualizes the educational process. In this context, students independently organize, plan, and monitor their own activities.

The historical development of project-based learning can be divided into five stages. These stages include its emergence in European architectural schools, its transfer to the United States and its application in teaching, its dissemination in public schools, its

subsequent transfer from America back to Europe, and finally the revival and international promotion of project-based learning. This last stage is closely associated with the name of Michael Knoll.

The paragraph further provides information about the emergence of ideas related to project-based instruction in Azerbaijan in the early twentieth century, when the country was part of the Soviet Union. During this period, the project method in Russia was considered a means of developing the individual qualities of a personality and was associated with the names of P.P.Blonsky, P.F.Kapterev, S.T.Shatsky, and other scholars.

The characteristic features of project research include problems, objectives, and results. Based on the studies of scholars, it can be concluded that the project-based learning method is very similar to the problem-based learning method.

Problem-based learning ensures the durability of knowledge and its creative application in practical activities. At the same time, the project method shares certain similarities with developmental learning.

Based on the generalization of knowledge acquired during the learning process, the following definition of a project can be formulated: a modern project serves as a didactic tool for activating students' cognitive activity, developing their creative abilities, and fostering specific personal qualities.

The main criteria that distinguish Project-Based Learning from other forms of educational activity are as follows:

1. The presence of an idea that offers a new solution to an existing problem;
2. Verification of the feasibility and practicality of the final outcome;
3. Implementation of the project and evaluation of its results;
4. The possibility of applying and disseminating the project outcomes on a broader scale.

By synthesizing these characteristics, it can be concluded that a project is a system of activities aimed at solving a problem that is meaningful to students, specially organized by the teacher and carried out independently by learners, resulting in the creation of a

tangible product. The primary objective of the project method is to develop students' self-directed learning skills and educational autonomy. Through their creative and practical activities, learners acquire new knowledge and skills, which are reflected in the final product of the project.

The second paragraph of Chapter I, entitled ***“The structure of the project,”*** states that in the process of studying the concept of a project and project activity, it is necessary to become acquainted with the typology of projects and to highlight their main stages and characteristics.

According to A.A.Bolshakova¹, the main features of a project include the problem, goal, work planning, literature review, written component, and presentation.

N.F.Yakovleva² examines the didactic value of the project method from two perspectives: the student's perspective and the teacher's perspective.

The type of project determines its structure, methods, sources of information, and reporting format.

From the students' point of view, a project represents the independent performance of tasks individually or in groups, solving interesting problems, making maximum use of their capabilities, sharing useful knowledge with others, expressing themselves, and presenting the results to the public.

The choice of topics for educational projects may vary. In some cases, topics are formulated by methodologists within the framework of approved state programs. In other cases, the teacher determines the topic based on the instructional context of the subject and the interests and abilities of the students.

The typology of projects is highly diverse, and numerous classifications exist. Scholars have proposed various classifications

¹ Большакова, А.А. Проектная деятельность в условиях реализации ФГОС // Проектная и исследовательская деятельность в условиях реализации ФГОС: сборник материалов конференции. Агентство образоват. инициатив, приклад. исслед. и консалтинга. – Северодвинск: «Перспективы», – 2012. – с.4-6.

² Яковлева, Н.Ф. Проектная деятельность в образовательном учреждении. Учебное пособие. 2-е изд., стер. / Н.Ф.Яковлева. – Москва: ФЛИНТА, – 2014. –144 с.

based on different approaches and principles. The paragraph also notes that projects differ according to their nature and the number of participants.

The objectives and tasks of project activities include: verifying knowledge and skills acquired through the studied material; developing abilities to search for and process information; fostering independence and responsibility; developing research skills; enhancing the ability to analyze and seek solutions; and promoting teamwork skills.

Project-based learning facilitates the in-depth study of topics and enables the effective use of its didactic potential. During the project process, there is close interaction between teacher and students based on the principles of equal partnership. Through the project method, the activity-based approach to education and instruction is implemented.

In the process of creative project activity, group interaction promotes the development of important social qualities of personality, such as teamwork, cooperation, mutual support, and the ability to work toward a common goal.

The third paragraph, entitled “***The system of basic requirements for project-based learning and types of projects,***” examines project-based learning as a teaching method that enables students to apply theoretical knowledge to real-world problems. In project-based learning, students may complete tasks either in classrooms or outdoors. This approach is suitable from preschool education through Grade 11 and even for university students.

Project-based learning varies depending on students’ age and the topic of the project. Some tasks may take less than one lesson, while long-term research projects may require a year or more to complete.

A project task should include most or all of the following seven criteria:

- formulation of a problem;
- an inquiry-based process that stimulates interest and questions;
- acquisition of new knowledge and skills based on prior knowledge;
- the use of higher-order skills such as critical thinking, communication, collaboration, and creativity;

- encouragement of student choice;
- opportunities for instructor or peer feedback and revision;
- public presentation of the problem, research processes, methods, and results.

The project method requires:

- the presence of a socially significant task or problem;
- a clear action plan for solving the problem, including the design of the project and the determination of the product and presentation format;
- students' research activity;
- a final product as the result of the project work;
- presentation of the completed project.

When implementing project-based learning in the classroom, it is important to consider students' needs and ensure that the project is appropriate and engaging for them.

The structuring of a project should begin with the selection of the topic, type, and number of participants. A well-designed project requires clearly defined objectives, social relevance, participants' interest, and well-developed methods for processing results.

Projects may also be classified according to their duration: short-term, medium-term, perspective-oriented, or long-term projects.

Each project type involves a particular form of coordination, deadlines, and number of participants. Therefore, when designing a specific project, it is necessary to consider the distinctive characteristics of each type.

Thus, after analyzing the history, essence, basic requirements, and types of projects, as well as the conditions for the effectiveness of project activities, it can be concluded that this instructional technology is currently widely used in many countries around the world, including Azerbaijan. One of the main reasons for this is its ability to integrate students' knowledge from different fields around a single problem, enabling them to apply acquired knowledge in practice while developing new ideas.

Project and research activities increase students' independence, are based on their interests, and bring them satisfaction; therefore, this approach is considered a personality-oriented teaching method.

Working with the project method significantly increases the effectiveness of pedagogical activity but requires a highly qualified teacher. The requirements for educational projects should be comprehensive and closely related to real-life contexts. The presence of a socially significant problem forms the basis for planning the activities required for the implementation of a project. Each project necessarily requires independent research by students.

The possibilities of the project method for the development and socialization of students' personalities are determined through the analysis of the structure of teacher and student activities, which significantly differs from the structure of activities in traditional forms of education.

Depending on their duration, projects may be classified as short-term, monthly, medium-term, and long-term. Accordingly, following an analysis of the history, nature, key requirements, and types of projects, as well as the conditions ensuring the effectiveness of project-based activities, it can be concluded that this instructional technology is currently widely applied in many countries worldwide, including Azerbaijan.

Table 1.3.1

**Structure of teacher and student activities when using the
Project method**

Student	Teacher
Formulates the objectives of the learning activity	Facilitates the formulation of the objectives of the learning activity
Constructs and acquires new knowledge through inquiry	Recommends sources of information
Conducts experiments	Suggests possible forms of work
Selects and justifies possible solutions to the problem	Assists in forecasting potential outcomes and results
Demonstrates active participation in the learning process	Creates favorable conditions for students' active engagement
Functions as an active subject of the educational process	Supports the evaluation of achieved outcomes and helps identify shortcomings and areas for improvement

In conclusion, it may be stated that the first chapter, through critical and cognitively oriented analysis and through accurate scholarly inquiry, makes it possible to achieve the intended objective in full. At the present stage of development of the education system, the project methodology continues to develop actively and is becoming increasingly popular due to its rational combination of theoretical knowledge with its practical application to the solution of specific problems. Project-based methodology enables students to reveal their creative potential and helps them adapt to a rapidly changing world.

In conclusion, it can be stated that, in Chapter I, through a critical and cognitive approach and systematic analytical inquiry within the chapter, the intended objectives have been fully achieved. At the current stage of development of the education system, project-based methodology continues to develop actively and is becoming increasingly popular due to the rational integration of theoretical knowledge and its practical application in solving specific problems. Project-based learning enables students to develop their creative potential and adapt to a rapidly changing world.

Project-based methodology allows students to analyze problems of interest and identify ways to solve them; it creates appropriate conditions and is directed toward both advanced learning activities and the achievement of prospective goals and objectives. Thus, the increasingly popular project-based learning approach opens broad opportunities for teachers in organizing a wide range of projects, which not only stimulates students' interest in the subject but also contributes to the development of effective learning practices that facilitate the application of acquired knowledge in practice.

Project-based learning promotes critical thinking, connects students' education with the real world, contributes to the long-term retention of knowledge, and encourages lifelong learning.

The second chapter of the dissertation is entitled “***The use of Project methods in the teaching process in primary school.***” The chapter consists of four paragraphs.

The first paragraph, entitled “***Possibilities of using the project method as a means of developing learning activity,***” addresses the

differentiation of teaching methods in accordance with the age characteristics of primary school students. One of such methods is project-based learning.

It is noted that, while studying different subjects in primary school, students should, at a level appropriate to their age, master methods of cognitive and creative activity, acquire communication and information skills, and be prepared to continue their education.

Project-based learning in primary school has its own specific features. In this process, under the teacher's guidance, the child becomes acquainted with scientific concepts and develops a worldview and a system of views. Project-based learning demonstrates different learning styles to students. It develops cognitive skills, and through this form of instruction students perceive the world around them in a richer and more diverse manner.

Project-based educational activity:

- enables students to carry out learning activities independently;
- directs them toward setting learning goals;
- creates opportunities to search for and use the means and methods necessary to achieve those goals;
- monitors and evaluates both the process and the outcomes of activity.

Project-based learning contributes significantly to the broad development of a child's research qualities and plays a leading role in the child's self-development.

When organizing project activities in primary school, it is necessary to take into account the age-related, psychological, and physiological characteristics of younger schoolchildren. This should not be forgotten, since the main task of the primary school teacher is not simply to teach children project activity as such, but rather to involve them in an active process.

One of the main features of using project activity with children of primary school age is the role of the teacher. Taking into account the age of the students, it is important to emphasize that the teacher's role also changes. From the position of a director and coordinator of actions, the teacher assumes a leading yet supportive role and becomes a facilitator and assistant.

In order to organize project activity effectively, the teacher must strictly follow a number of methodological rules:

1) determine the topic and content of the project together with the students;

2) identify the object of research and the hypothesis, formulate the aim, objectives, and expected outcomes;

3) determine the practical significance of the project, that is, where and how its results will be used;

4) determine the research methods to be employed, such as the study of specialized literature, searching for information on the internet, laboratory observation, questionnaires, and other methods;

5) determine the stages of project activity, the sequence of implementing the plan, and the outcomes expected at each stage;

6) identify social partners who may be involved in collaborative activity;

7) create creative groups and determine the scope of work for each of them;

8) think through the forms of presentation of the project activity.

Observance of these rules enables the teacher to systematize joint activity with students, which in turn contributes to the development of their algorithmic thinking, their ability to foresee and formulate tasks for the future, and their capacity to work consistently on a project.

Although project-based learning in primary school has many advantages, there are also certain difficulties associated with its implementation. These include the following:

1. Engaging students: it may be difficult to involve students and keep them engaged throughout the entire project. Maintaining their commitment and motivation during the whole project process can be challenging.

2. Time management: another difficulty connected with project-based learning is managing time effectively. Involving students in the learning process and improving the mental operations that ensure conscious assimilation, such as perception, comprehension, and consolidation, may create difficulties.

3. Materials and resources: project-based learning often requires a large amount of materials, which may be problematic, especially if the classroom space is limited.

4. Differentiation of instruction: while students work on the same project, they may be at different levels of development, which makes differentiation difficult.

5. Assessment of students' knowledge: evaluating students' mastery of instructional material also requires the maximum use of advanced teaching methods.

Thus, having examined the characteristics of using the project method in teaching, it can be concluded that this technique is feasible and appropriate for implementation in primary school settings. Working on projects is one of the ways through which pupils become involved in socially regulated activity, during which the child learns to define the boundaries of their independence, freedom, and responsibility.

The second paragraph, entitled ***“Possibilities of using the Project method in primary school lessons,”*** It is widely recognized that to enhance the efficacy of the teaching and learning process, educators must employ a diverse array of pedagogical strategies. Among these methodologies, the project method occupies a uniquely prominent position. The definitive characteristic of this approach lies in the purposeful and systematic organization of instructional activities. Ultimately, the primary goal of Project-Based Learning (PBL) is to cultivate individuals who are creative, proactive, and equipped with competencies essential for lifelong learning.

By synthesizing these core attributes, it can be concluded that a project is a structured system of activities designed to address a problem that holds meaningful relevance for students. Specially scaffolded by the educator and executed independently by the learners, this process culminates in the creation of a tangible artifact. Consequently, the central objective of the project method is to foster students' self-directed learning capacities and educational autonomy. Through their creative and practical endeavors, learners acquire new knowledge and competencies that are ultimately manifested in the project's final output.

When designing and executing these projects, several critical parameters must be systematically addressed. These prerequisites

include identifying a core problem that aligns with student interests, ensuring learner autonomy throughout the decision-making process, predefining expected outcomes, establishing a structured project timeline, securing the necessary materials and resources, and carefully assessing the prerequisite knowledge and skills required for successful project completion.

The main principles of project planning are as follows:

- determining which problem will arouse the greatest interest among students;
- ensuring that students' freedom is not restricted when making decisions;
- forecasting the approximate outcomes;
- determining the time frame for completing the project;
- selecting the necessary materials;
- taking into account what knowledge and skills students will need before the project begins or during its implementation.

According to V.V.Guzeev,³ the sequence of stages in project work in the European and American versions may be distinguished as follows. In the American version, the stages are:

- formulation of the expected learning outcome;
- understanding the concept of the educational materials;
- teaching the required skills;
- formulation of the project topic;
- preparation of the project proposal;
- implementation of project tasks;
- presentation of the project report.

In the European version, project work proceeds through the following stages:

- preparation;
- planning;
- research;
- results;
- presentation or report;
- evaluation of both the results and the process.

³ Guzeev, V.V. The project method as a special case of integrated learning technology // Director Shkoly (School Director). – 1995. No. 4, – pp. 39-47

Work on each project includes:

- initial instruction for a group of 5-7 students;
- individual tasks;
- stimulation of individual research activity.

When projects are implemented, theoretical and practical activities are considered together, since they represent two stages of a unified activity, although practical activities predominate in the implementation process.

The project method contributes to students' independence and to the development of all dimensions of personality, while ensuring the student's subjectivity within the instructional process. The third paragraph entitled "***Directions and outcomes of organizing project activities in Knowledge of the World lessons in primary school,***" This paragraph focuses on expanding primary school pupils' worldview and fostering their environmental awareness. While play constitutes the dominant activity during the preschool years, by the age of seven, a child attains a level of physical and psychological development that signals readiness for formal instruction. Nevertheless, it is critical to acknowledge that primary school learners retain a pronounced psychological need for active play. Their primary intrinsic drive centers on the achievement of success; consequently, learning motivation must be systematically sustained to ensure continuous cognitive development.

The project method represents a pedagogical framework through which students acquire knowledge by planning and executing practical, goal-directed projects. Among the broader educational objectives of this methodology, three primary dimensions can be distinguished:

It enhances each participant's personal self-efficacy, enabling self-actualization and promoting critical reflection.

It fosters an awareness of the critical role of teamwork in achieving objectives, underscoring the importance of collaboration and cooperative synergy during creative tasks, while simultaneously cultivating peer-to-peer communication skills.

It systematically develops student research and inquiry-based skills.

The overarching efficacy of this method is heavily contingent upon aligning the curriculum with students' developmental age characteristics, the scaffolding role of the educator, instructional creativity, group dynamics, and the strategic implementation of choice-based learning scenarios, among other institutional factors.

Based on the empirical analysis of an oral survey administered to fourth-grade students, the data indicate that only one-third of the cohort demonstrates a high level of oral and logical reasoning development. Concurrently, distinct subsets of students exhibiting moderate, below-average, and low developmental thresholds were also identified.

Furthermore, the oral diagnostic survey conducted in this phase revealed that while students find Science significantly more engaging than other subjects, they simultaneously encounter notable cognitive difficulties in fully comprehending specific complex topics within the curriculum.

The fourth paragraph, entitled ***“Directions for organizing Project activity in foreign language lessons (English) in primary school and its results,”*** states that teaching English in primary school is aimed at achieving the following objectives:

1. forming in students an initial understanding of the role and importance of the English language in the life of the modern individual and in a multicultural world, acquiring initial experience in using English as a means of intercultural communication, and understanding the world and culture of other peoples;

2. developing the ability of primary school students to communicate in English at an elementary level in oral forms (listening and speaking) and written forms (reading and writing), taking into account their communicative capacities and needs;

3. introducing children to new social experiences through the use of English by familiarizing younger schoolchildren with the world of foreign peers and with children's folklore from other countries, while fostering a friendly attitude toward representatives of other nations;

4. developing the speech, intellectual, cognitive, and general educational abilities of younger schoolchildren, as well as motivation for further mastery of English;

5. ensuring the education and comprehensive development of students through the use of English.

In order to achieve successful results through the use of the project method, younger schoolchildren should develop universal learning actions such as general educational, logical, problem-setting, and problem-solving skills.

One of the most important universal cognitive actions is the ability to solve problems. In primary school, mastering the general technique of problem-solving is based on the formation of logical operations, such as the ability to analyze an object, make comparisons, identify similarities and differences, classify, sequence, establish logical connections, and construct analogies.

In order to achieve this purpose, the following indicators were identified:

- the child's value-based attitude toward project activity;
- the child's readiness for project activity;
- the ability to plan information search;
- the ability to extract information;
- the ability to process information;
- the ability to conduct dialogue and seek compromise;
- the ability to distribute tasks within a team;
- the ability to work in a team and cooperate with classmates and partners;
- the ability to evaluate one's own progress in project activity.

The formulation of the research objective made it possible to determine the content (indicators) and methods of the diagnostic map presented in Table 1, which reflects the structure of the ascertaining experiment.

As a result of the conducted experiment, the following findings were obtained during the ascertaining stage: the level of problem-solving skills among children aged 9-10 according to Methodology 1; the level of information skills among children based on Methodology 2; the level of communication skills among children aged 8-10 according to Methodology 3; the percentage results reflecting the level of development of project skills among children aged 9-10 according to Methodology 4; the results of the verification

experiment aimed at determining the level of development of project skills among children aged 9-10 using all the applied methodologies during the control stage; and the levels of development of verbal and logical thinking among Grade IV students.

The ascertaining experiment enabled us to draw the following conclusions: when examining the diagnostic results, the level of development of verbal-logical thinking among younger schoolchildren was identified as a key condition for the successful implementation of the project method in English language lessons. The overall results of the ascertaining experiment demonstrated the necessity of applying the project method at the initial stage of school education, since primary school students need to develop the ability to analyze objects, identify their characteristics, establish cause-and-effect relationships, construct logical reasoning chains, justify their opinions, formulate hypotheses, and substantiate them.

The analysis of the oral survey conducted among Grade IV students once again confirmed that only about one third of the students demonstrate a high level of verbal and logical thinking development, whereas the majority show an average level of development, and some students exhibit levels below the average or low levels.

The control experiment yielded the following conclusions: empirical analysis of the diagnostic data indicates that the developmental level of primary school pupils' oral-logical reasoning constitutes a critical determinant for the successful implementation of the project method in English language instruction. Furthermore, the aggregate outcomes of the formative experiment underscore the necessity of introducing Project-Based Learning at the initial stage of formal schooling. This imperative arises because primary school learners must systematically develop the capacity to discern unique attributes, establish cause-and-effect relationships, construct inferential linkages, formulate logical chains of reasoning, defend their perspectives, propose hypotheses, and analytically evaluate objects to substantiate their findings.

The outcome of the project involved students writing a story about their favorite activities and presenting it using illustrations corresponding to their hobbies.

In order to evaluate the results of implementing the project method in English language lessons, it was decided to conduct a survey among students. The results of the survey are presented in

Table 2.4.1.
Diagnostic chart for determining the level of project skills in 9-10-year-old children

Project Skills Component	Key Indicators	Methodology
Problem-solving skills	- positive attitude towards project activities - readiness for project activities	Observation
Information-gathering skills	- planning the information search - data extraction - information processing	Observation 1
Communication skills	- ability to engage in dialogue and reach compromises - ability to distribute tasks within a team - ability to work collaboratively with colleagues and partners	Observation 2
Social skills	- Ability to self-assess progress in project activities	Observation 3

The diagnosis was carried out on the basis of the diagnostic stage, Observation 1, Observation 2, and Observation 3.

In order to enhance the effectiveness of instruction in primary school through the use of the project method, the purpose of the experimental study was to verify the effectiveness of the proposed scientific innovation and to evaluate the results of the work carried out at the stage of skill formation.

To achieve this goal, the following tasks of the control phase of the experimental work were defined:

1. To conduct a repeated diagnosis of the level of development of oral-logical thinking among 4th-grade students.
2. To compare the results of the initial and repeated diagnostics.
3. To draw conclusions about the effectiveness of the work carried out.

In order to achieve the set goal and solve the defined tasks, a repeated diagnosis of the level of development of oral-logical thinking in primary school pupils was conducted to evaluate the results of the work carried out.

The assessment of the development level of oral-logical thinking in younger schoolchildren was carried out based on the criteria and levels we defined, and the results were presented in the form of tables.

Thus, analysis of the data obtained during the experimental work allows the conclusion that the application of the project method in the educational process and the organization of work based on project activities contributes to the improvement of the level of development of verbal and logical thinking among younger schoolchildren.

The comparative analysis of the results of the initial and repeated diagnostics aimed at determining the level of development of verbal and logical thinking among Grade IV students confirmed the correctness of the proposed hypothesis and demonstrated the positive results of the experimental work.

The research devoted to the problem of using project methodology in teaching English and Knowledge of the world subjects led to the following **conclusions**:

1. Though the project method isn't a modern pedagogical teaching technology it may serve as an effective alternative to the traditional classroom system. The necessity of applying this approach in modern school education is associated with the evident tendency to ensure the fuller development of the student's personality and to prepare learners for real-life activity.

2. The research showed that the project method is increasingly used in the teaching process in primary school due to its specific characteristics:

- a) the project methodology focuses on the realization of students' personal potential and promotes subject-subject interaction between teacher and student rather than the traditional subject-object relationship. The teacher acts as a facilitator and consultant, which positively influences the quality of instruction;

b) The project methodology in the process of English language speech activity is based on the personal-activity approach and aims at the acquisition of communicative competence. The activity component is implemented in two forms. In project work, on the one hand, a connection between theory and practice is observed. In the process of creating a specific product (such as a wall newspaper, humorous photo collage, interview text, magazine, or diary), students apply certain scientific knowledge and their own experience, and they demonstrate their abilities in solving various problems in the most effective way. On the other hand, during project work, students are engaged in active cognitive activity. In learner-centered education, learners' communicative and cognitive needs become the internal motivation for speech activity, while language fulfills its primary function as a means of forming and expressing thought.

3. The study showed that project methodology is based on a personal-activity approach and contributes primarily to the formation, development, and improvement of the linguistic personality, and consequently to the enhancement of pupils' English communicative and intercultural competence as a whole.

4. The study confirmed that the project method is one of the most popular approaches used in primary school to improve the quality of education. Its application promotes the development and individualization of the child's personality and fosters motivation for acquiring knowledge. Through this method, younger students not only acquire knowledge about the language being studied but also develop their creativity and activity. At the same time, the teacher's main task is to stimulate students' interest and involve them in an active learning environment. During the learning of English, cognitive motivation becomes particularly evident when students are engaged in creative project activities.

5. The research showed that when appropriate pedagogical conditions are created for the effective organization of students' creative activities, the application of the project method positively influences the development of learning motivation and interest in education.

6. Project-based learning in the Life Skills subject significantly enhances students' ability to investigate environmental issues and

propose solutions. The results of the conducted experiment demonstrated that students are capable of presenting creative and practical solutions to these problems within their projects.

7. The application of project-based learning in the Life Skills subject contributes to the comprehensive development of students by promoting cooperation and teamwork skills and fostering a sense of responsibility.

8. The ability to apply the project method is an indicator of a teacher's high professional qualification and mastery of progressive teaching and developmental methods. When teachers creatively utilize the experience of other educators to develop students' motivation, the quality of education can be significantly improved.

9. The use of project-based learning in the Life Skills subject also contributes to the development of students' ecological awareness and responsibility, encouraging them to treat nature more carefully and take steps toward its protection.

10. The research indicates that when the presentation of learning material in project-based instruction is flexible, students' cognitive capacities expand and the quality of learning improves.

11. Working on projects is one of the ways through which students become involved in socially regulated activity. In this process, children learn to define the boundaries of their independence, freedom, and responsibility. This technology also contributes to the development of moral values and communication skills, enhances creative abilities, cultivates the ability to perform socially useful work, and prepares the younger generation for modern life. At the same time, the tendencies observed in the organization of project activity among younger students indicate the necessity of regulating emerging practices, as such activities positively influence both academic and socio-emotional development and contribute to the formation of successful individuals in the future.

Based on the content of the research and the results obtained, the following recommendations are considered appropriate:

1. Considering the importance of applying the project method in improving the quality of primary education, teachers should give special attention to this pedagogical technology.

2. In project-based learning, motivation should not be developed only through experimental activities but should also be continuously fostered in everyday teaching practice. For younger schoolchildren, such work should primarily be aimed at their ongoing cognitive and personal development.

3. It is important to increase the number of teaching resources and scientific-pedagogical publications related to the application of the project method and to ensure their accessibility for primary school teachers.

4. In order to enhance teachers' pedagogical experience in using the project method, it is necessary to organize appropriate professional development courses for primary school teachers.

5. It is important to regularly organize scientific-practical conferences and seminars dedicated to the application of the project method in improving the quality of primary education.

The main provisions of the dissertation are reflected in the following articles and conference papers by the author:

1. Some Features of Project-Based Learning // – Baku: Scientific News, Azerbaijan University of Languages.– 2022. №1, – p.23-25.
2. Azerbaijani Identity and Multiculturalism // Proceedings of the V International Scientific Conference “Heydar Aliyev: The Ideology of Multiculturalism and Tolerance,” dedicated to the 99th anniversary of the birth of the National Leader Heydar Aliyev. Azerbaijan University of Languages, – Baku: – April 28, – 2022. – p.47-48.
3. The History and Essence of the Project Method // – Baku: Scientific News, Azerbaijan University of Languages, – 2023. №1, – p.142-146.
4. Forms and Types of the Project Method Used in Inclusive Education // Moscow Pedagogical State University. Psychological and Pedagogical Problems of Modern Education: Ways and Methods of Their Solution. Proceedings of the VI International Scientific-Practical Conference. – Dербent, Republic of Dagestan. Makhachkala: ALEF Publishing House, – February 27, – 2023. – p.469-473.

5. The Project Method as a Means of Developing Universal Cognitive Learning Activities in Primary School // – Baku: Scientific of the Works, Baku Girls University. – 2024. Vol.18. №1(57), – p.52-57.
6. Project-Based Teaching and Its Main Requirements // News of the Pedagogical University. Series of Humanities, Social and Pedagogical-Psychological Sciences, Azerbaijan State Pedagogical University. – Baku: – 2024. 72. №1, – p.241-247.
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8. Advantages of Applying Project-Based Learning in Foreign Language Lessons // – Baku: Scientific Works, Institute of Education of the Republic of Azerbaijan.– 2024. №3, – p.121-124.
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- Who Does Not Love the Motherland Cannot Exist.” Shamakhi Branch of Azerbaijan State Pedagogical University, – Baku: – May 31, – 2024. – p.363-364.
14. The Impact of Project-Based Learning on the Development of 21st-Century Skills // Nakhchivan Teachers Institute, Non-Profit Legal Entity (PHŞ), Proceedings of the International Scientific Conference on “Science in the Higher Pedagogical Education System: Realities and Prospects,” – Nakhchivan, Azerbaijan, – December 19–20, – 2025, – p. 101-105.
 15. Advantages and Disadvantages of Project-Based Learning // Sumgait State University, Proceedings of the XXVII Republican Scientific Conference of Doctoral Students and Young Researchers (NASCO XXVII), dedicated to the “Year of Solidarity for a Green World,” Conference Proceedings (Social Sciences and Humanities), – Sumgait: – December 10-11, – 2025, – p. 622-626.
 16. The Role of the Teacher in Project-Based Learning // – Baku: Azerbaijan Institute of Education, Scientific Works, – 2025, – pp. 66–70.
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 20. The Structure of Project-Based Learning // – Baku: Scientific Works, Baku Girls University. – 2025. Vol.22. №1(61), – p.49-53.

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