

**THE REPUBLIC OF AZERBAIJAN**

*In the right of manuscript*

**ABSTRACT**

of the dissertation for the degree of Doctor of Philosophy

**PEDAGOGICAL BASES OF DEVELOPMENT OF  
READING COMPREHENSION SKILLS OF STUDENTS  
IN PRIMARY GRADE**

Specialization: 5804.01 – General pedagogy, pedagogy and  
history of education

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## GENERAL DESCRIPTION OF THE RESEARCH

### **Relevance of the topic and degree of development.**

Developing reading comprehension skills in primary school children is an important foundation for lifelong learning. The pedagogical basis of this development covers several key principles. The focus here should be on developmental stages. According to early physiological and psychological factors, early literacy skills can be developed in many children. In the early stages the main attention is paid on phonological awareness, alphabetic knowledge and basic decoding skills. A number of interactive reading and writing activities develop these skills. Active reading, shared reading, and reading frequency impacts on reading comprehension skills. Explicit comprehension strategies such as inference, questioning, identifying main ideas, and summarizing are vital. It is also important to provide students with a variety of reading materials that are age-appropriate and meet their interests. Developing reading comprehension skills in elementary school students has many academic, social, and personal benefits.

**Language development:** Strong reading skills enhance written and oral communication, developing vocabulary, grammar, and fluency.

**Comprehension:** Understanding texts stimulates critical thinking, analysis, and synthesis of information, which leads to better performance in all subjects.

**Motivation:** Reading opens doors to a variety of knowledge and experiences, increases interest, and engages students in learning.

**Empathy and understanding:** Literature exposes students to diverse perspectives and cultures, helping to develop empathy and social awareness.

**Self-confidence:** Mastering reading creates confidence and a sense of accomplishment, motivating students to learn more.

**Lifelong learning:** Strong reading skills equip students with the tools to independently access and understand information throughout their lives. There are also cognitive benefits for developing these skills. There are also benefits in mental thinking concepts such as memory, concentration, and problem solving. Reading strengthens memory pathways, improving retention and recall of information. Focused reading trains attention and sustains focus, leading to better concentration in all situations. Analyzing and

interpreting texts develops problem-solving skills that can be applied to a variety of problems.

The development of reading comprehension skills in primary grades is an urgent and priority issue at all times. In modern education systems, reading comprehension is considered a basic skill that underpins not only language subjects, but also all subjects. One of the main goals of 21st century education strategies is to train students not only as recipients of information, but also as individuals who can think critically, form deep understandings and interpret knowledge. In order to achieve this goal, the development of their reading comprehension skills is at the forefront. This skill involves the student reading the text, understanding the author's ideas, drawing conclusions, forming his or her own position and justifying this position. Therefore, this skill is considered one of the important factors of success in education and integration into society.

International assessment studies also support this idea. For example, the results of the Program for International Student Assessment (PISA) and the Progress in International Reading Literacy Study (PIRLS) show that students with high reading comprehension scores perform better not only in language arts, but also in mathematics, science, and social studies. This shows that reading comprehension is at the heart of the learning process.

In Azerbaijan, within the framework of educational reforms, the development of reading comprehension skills has been identified as one of the priority areas. In the 2022-2026 socio-economic development strategy of the Republic of Azerbaijan, in the action plan of the Ministry of Science and Education, high results of students in international assessments, including PIRLS, are among the main goals. The new curriculum models, assessment criteria and textbook policies adopted by the Ministry of Science and Education are aimed at systematically teaching this skill. However, studies show that the role of not only the school, but also the family and especially parents is of great importance in this process.

The role of parents in this direction is reflected in many theories: Vygotsky's Social Development Theory, Bronfenbrenner's Ecological Systems Theory, the social-emotional environment created by parents,

Senechal and LeFevre's Home Reading Model, and Bandura's Social Learning Theory, the role of parents is important for the development and continuous development of a child's reading comprehension skills.

There are two main traditional educational plans in the modern era for the development of reading comprehension skills, which are accepted in international practice as SQ3R (Inquiry, Question, Read, Repeat, Review) and PQ4R (Preview, Question, Read, Reflect, Repeat, Review).

These traditional educational plans are a few of the most commonly used guided reading strategies to help students with reading difficulties.

By using a number of pedagogical principles and providing a positive and engaging learning environment, it is possible to effectively develop reading and comprehension skills in primary school students. Among the experts on reading and comprehension skills, there are studies on the topic by foreign researchers, including Canadian psychologist A. Bandura, author of the ecological systems theory Y. Bronfenbrenner, Russian psychologist L. Vygotsky, Australian scientist R. Kavanagh and others. Among Azerbaijani scientists, there are works by Y. Karimov, N. Jafarova, A. Rahimov mainly on the methodology of teaching the Azerbaijani language in primary schools, works on technology by K. Mammadova, and on the methodology of teaching mathematics by N. Muradova and S. Hamidov. These works contain a number of theoretical and empirical provisions on the development of reading comprehension skills in the native language and exact subjects. At the same time, the works of A. Pashayev, E. Jafarova, Z. Veysova are also of great importance for the study and application of interactive learning. In order to determine the place and role of all the above mentioned in the science of pedagogy, it is necessary to look through the works written by V. C. Khalilov, A. N. Abbasov, H. H. Ahmadov and R. L. Huseynzade.

**Object and subject of the research.** The object of the research work is to conduct research pedagogical foundations related to the development of reading comprehension skills in primary grades.

**The subject of the research work** includes methodological approaches related to the analysis of the essence and content of the

concept of reading comprehension, the importance of the concept of reading comprehension, international assessments, and issues related to the responsibilities of parents in this process.

**Aims and objectives of the study.** The main aim of the study is to determine the importance of reading comprehension skills and to identify the modern requirements and future prospects of pedagogical foundations for primary reading comprehension in Azerbaijan. The tasks for achieving this aim are determined as follows:

- First, to determine the essence of reading comprehension skills and their importance in the modern era;
- To determine the role of the concept of reading comprehension in international assessment;
- To identify the parents’ responsibilities in the development of these skills and to determine a general conceptual perspective on their active participation;
- To determine the pedagogical approach to the rules of organizing work with parents and to justify the study of psychological and pedagogical educational potential;
- To apply the criteria of methodology and statistical analysis based on international assessment (PIRLS 2016);
- To determine the assessment indicators of general cognitive, interpretive and critical skills of primary school students in our country;
- To study the unity of reading comprehension skills in the field of science, education and high technologies;
- To monitor the development of bilateral relations between traditional strategies for reading comprehension skills and modern strategies.

**Research methods.** The theoretical basis of the dissertation work is the integration of traditional pedagogical reading principles into the international educational environment in a modern context and the current situation in our country in this direction and support for its development.

In the research work, the statistical data of PIRLS 2016 for Azerbaijan were analyzed in the SPSS program. Multilevel linear regression analysis between the parent survey data and the reading

results of 4th grade students in PIRLS 2016 across the country were conducted. The data obtained were analyzed in relation to the variables taken as the basis for the scientific work. In addition, in the research work, a number of strategies were applied for the assimilation of materials taught in the Azerbaijani language curriculum for the purpose of developing reading comprehension skills. Educational programs (curricula) of 2013 and its further improved form belonging to 2023 were applied in this research work. The purpose of basing the research on the Azerbaijani language curriculum here is due to the fact that standards related to reading comprehension skills are mostly included in the curriculum for this subject.

During the research process methods such as generalization, evaluation, problem-chronological, deduction and induction were used as well.

**The main statements put forward for defense:**

– The development of reading comprehension skills plays an important role in increasing a person's professionalism throughout his life;

– In addition to academic advantages, reading comprehension skills also have social, personal and cognitive advantages and are also one of the important components that form the basis of personal and social relationships;

– The development of reading comprehension skills also serves to evaluate education, strengthen and expand its potential;

– The development of reading comprehension skills is significantly influenced by the integrative basic principles of the education system in the world, mutual scientific communication and assessment criteria;

– The development of the pedagogical functions of parents in a globalized environment also contributes to a relatively equal distribution of the burden on the school.

**Scientific novelty of the study.** The methodology and principles related to the analysis and assessment of the development of reading comprehension skills in an international context have never been the subject of a separate dissertation in Azerbaijani pedagogical science, and it is the first time that this topic is being studied systematically.

Among the scientific innovations of the study, the following can be noted:

- For the first time, the development of reading comprehension skills is studied on the basis of modern assessment criteria;
- The fact that education is a social, pedagogical and household issue, along with state policy, was analyzed from the perspective of reading comprehension skills;
- The positive or negative impact of parents on the dynamics of primary school students' perception of the curriculum was analyzed;
- Parent-teacher-student collaborations in the field of science and education were studied in terms of form and content;
- Modern assessment criteria for traditional strategies related to reading comprehension skills were shown, and practical measures implemented in this area were systematized and analyzed.

**Theoretical and practical significance of the research work.**

The theoretical significance of the research work is conditioned by the fact that the results obtained in the process of work allow us to identify certain additions and innovations in pedagogical principles, to assess their essence, which, in turn, can be taken into account when defining educational programs in accordance with international standards, national interests and state policy in the field of education.

The practical significance of the dissertation is that its materials can be used in the process of writing works related to the topic under the study. They can also be used in teaching process, in compiling textbooks, subject programs, lecture texts, methodological aids, etc. in higher education institutions.

**Approbation and application of the research:** The main scientific provisions and results put forward in the dissertation have been reflected in the author's scientific articles published in Azerbaijan and abroad, recommended by the Higher Attestation Commission, and in her reports at various scientific and practical conferences.

**Name of the organization where the dissertation work was carried out:** The dissertation was carried out at the Institute of Education of the Republic of Azerbaijan.

**Total volume of the dissertation with marks, indicating the volume of the structural sections of the dissertation separately:**

The introductory part of the dissertation consists of 8 pages, 13530 marks, the first chapter consists of 27 pages, 50117 marks, the second chapter consists of 42 pages, 81962 marks, the third chapter consists of 36 pages, 53684 marks, the conclusion consists of 9 pages, 14541 marks, the literature consists of 11 pages. The dissertation work consists of 135 pages in total, 213834 marks.

## MAIN CONTENT OF THE RESEARCH

The first chapter of the dissertation is entitled “**General pedagogical problems of the development of reading comprehension skills in primary grades of secondary schools**”. The chapter consists of three paragraphs. The first paragraph of the first chapter is entitled “*Analysis of the essence of the concept of reading comprehension and principals and pedagogical approaches to its content*”. The paragraph studies principal and pedagogical approaches to the essence of the problem. The student’s success in the learning process depends on the ability to extract content from various sources and use it in accordance with the goals and objectives. The ability to present the main idea in the text in an understandable format is equally important. From this point of view, the importance of teaching reading against the background of the modernization of the education system must be appreciated. When considering the problem of teaching semantic reading in native language lessons, it is necessary to define the concept of reading as one of the types of speech activity. Reading is a specific analytical- synthetic activity consisting in the perception and comprehension of information found in the text. Reading is not only the goal of learning, but also its means. With the help of reading, the student receives information, gains many years of human experience, that is, reading performs developmental and educational functions.

A number of pedagogical principles and approaches are important for effective development in this area. The most important among these principles is clear and systematic instruction. These instructions include phonological awareness, phonics, vocabulary development, and the identification of comprehension strategies. The

second main principle involves active support by the teacher and providing them with the necessary materials. It is very important to provide each student with instructions and materials that meet their individual needs and learning styles. This may include the use of high level texts, graphic organizations (preparation of slides, projections, etc.), and different questioning strategies.

The second paragraph of the first chapter is dedicated to the importance of the concept of reading comprehension and its role in global assessment. In the paragraph titled “*The Importance of the concept of reading comprehension and its role in international assessment,*” the problem is comprehensively investigated and conclusions are drawn. The concept of reading comprehension has several important aspects. Reading comprehension is a key indicator of academic success across all subjects. It is essential for understanding complex texts, finding out new information, and completing tasks effectively. Reading comprehension skills allow individuals to analyze information, identify biases, evaluate arguments, and form informed opinions. Reading comprehension is considered one of the main cognitive components at all stages of education. This skill includes not only the ability to read a text superficially, but also the ability to understand its semantic content, distinguish the main idea and supporting ideas, draw logical conclusions, and connect it with new knowledge<sup>1</sup>.

Reading comprehension is a key skill for all subjects. Comprehension of texts is a key requirement for teaching subjects such as mathematics, science, and history. Studies show that developing this skill from an early age is one of the strongest factors in school success. Teaching children to read and understand texts from an early age plays an important role in the process of preparing for school. Reading comprehension is also important for social- emotional development.

Reading comprehension is closely connected with writing and speaking skills. It allows individuals to express their ideas clearly and concisely, and to understand the nuances of communication. During a reading process individuals get new ideas and perspectives, and it

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<sup>1</sup> Kintsch, W. *Comprehension: A Paradigm for Cognition* // Cambridge University Press,– 1998

promotes their creativity, empathy, and understanding of the world around them.

The role of reading comprehension in international assessment is determined by a number of programs:

International assessments - Program for International Student Assessment (PISA), the Progress in International Reading Literacy Study (PIRLS) play an important role in monitoring and comparing reading comprehension performance across countries. These assessments provide valuable information:

- Identifies strong and weak sides: Identifies the fields which students are good at and the fields which they need more support.
- Informs policy decisions: Guides the development of educational policy and curriculum at national and international levels.
- Promotes best practices: Shares effective teaching strategies and interventions in different countries.
- Takes progress of comparison as a benchmark: Tracks how the performance of reading comprehension changes over time.

The third paragraph of the first chapter is entitled "*Approach to the concept of reading comprehension in the primary school curriculum of the Azerbaijani language subject and its application in textbooks.*" The paragraph comprehensively studies the theoretical characteristics and application status of the concept of reading comprehension in modern Azerbaijani language teaching. In Azerbaijan, great attention is paid to the development of reading comprehension skills in the Azerbaijani language curriculum in primary grades. In the 2013 Azerbaijani language education program (Curriculum) for secondary schools of the Republic of Azerbaijan (grades I-XI), the content lines - listening comprehension, reading, writing and language rules - are covered at the primary education level through the teaching of the Azerbaijani language in secondary schools: *"learning the alphabet, mastering reading and writing techniques, rules of etiquette, initial skills in correct, fast, conscious and expressive reading, gradual enrichment of vocabulary, learning and applying the most necessary grammatical rules and literary pronunciation norms, forming expressive speech skills, creating initial understandings about the language, history, moral and spiritual*

*qualities, culture, customs and traditions of the Azerbaijani people are ensured." Also, according to the general learning outcomes of the Azerbaijani language, students in primary grades should acquire skills related to reading in accordance with the following content lines: knowing the meaning of words, understanding the content and elements of texts of different styles, and enriching their vocabulary.<sup>2</sup>*

In 2023, this program was updated by the Institute of Education of the Republic of Azerbaijan and the criteria that include more comprehensive skills, especially in the reading content line, have found their counterpart. *The document emphasizes that reading comprehension is not only about understanding the content, but also about developing the skills of analyzing the text, drawing conclusions based on the facts mentioned therein, and imagining the events or images described in the text. In addition, the sub-standards of the Azerbaijani language content line for primary grades also include these skills: expressive reading, although not directly related to understanding, factual comprehension, which involves identifying and memorizing clearly expressed information, critical thinking and analysis based on commenting on events in the text and drawing conclusions, and expressing opinions on the text read.<sup>3</sup>*

All of these approaches are implemented in textbooks in one way or another. One of the main issues is the variety of text types. Textbooks include a wide range of text types, such as folk tales, poems, short stories, informative texts, and scripts. This gives students opportunities to practice reading comprehension skills in a variety of contexts. The second important point is the inclusion of

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<sup>2</sup> Azərbaycan Respublikası Ümumtəhsil məktəbləri üçün Azərbaycan dili üzrə Təhsil Proqramı (Kurikulumu) (I-XI siniflər): [Elektron resurs]/Azərbaycan Respublikası Təhsil Problemləri İnstitutu. – Bakı, – 2013. URL: [https://www.arti.edu.az/nodupload/editor/files/1\\_%20Az%C9%99rbaycan%20dili - Kurikulum%202013.pdf](https://www.arti.edu.az/nodupload/editor/files/1_%20Az%C9%99rbaycan%20dili - Kurikulum%202013.pdf)

<sup>3</sup> Azərbaycan Respublikası Ümumtəhsil məktəbləri üçün Azərbaycan dili üzrə Təhsil Proqramı (Kurikulumu) (I-XI siniflər): [Elektron resurs]/Azərbaycan Respublikası Təhsil Problemləri İnstitutu. – Bakı, – 2023. URL: <https://arti.edu.az/wp-content/uploads/2024/01/T%C9%99kmill%C9%99sdirilmis-Az%C9%99rbaycan-dili-f%C9%99nn-kurikulumu.pdf>

comprehension questions. Textbooks include comprehension questions before, during, and after reading. These questions help students focus on main ideas and details, make predictions and check their understanding. Textbooks also include activities that encourage students to work together and to discuss the text and answer comprehension questions. This collaboration helps students develop critical thinking and communication skills. It is also important to include differentiated instruction, usually at the end of the textbook. Textbooks mainly include differentiated instructional materials to meet the needs of all students. This may include texts at different levels, vocabulary support, and additional activities for struggling readers. Here are some examples of how these approaches are implemented in Azerbaijani language textbooks:

**Folktales and Stories:** Students read a folktale and then answer comprehension questions about the characters, plot, and setting. They also discuss the moral of the story and how it relates to their own lives.

**Informative Text:** Students read an informative text about a specific topic, such as the history of Azerbaijan or different regions of the country. They then use a graphic organizer to identify main ideas and supporting details.

**Poetry:** Students read a poem and then discuss the poet's use of language, imagery, and sound devices. They also create a drawing or illustration that reflects the theme of the poem. When considering the methodology of teaching the Azerbaijani language as a science, it is necessary to take into account the specific developmental patterns of teaching, research methods, theoretical foundations, and connections with other sciences.

The next, second chapter of the dissertation, entitled **“The Role of parents in the development of reading comprehension skills in elementary school students,”** combines three paragraphs. The first paragraph of the chapter is titled *“Forming the pedagogical culture of the modern family and studying the psychological and pedagogical educational potential of parents.”* Parents play a crucial role in the development of their children’s literacy, especially during the crucial years of elementary school. Studies consistently demonstrate a strong link between parental involvement and young learners’ reading

comprehension skills. There are many ways and means by which parents can significantly influence their children's interest in reading. Regularly sharing stories with infants from birth instills a love of reading and cognitively teaches children vocabulary, grammar, and storytelling techniques. Children whose parents participate in reading instruction have better reading comprehension skills than children whose parents do not participate. The second chapter, entitled "*Forms and importance of parental involvement in the development of reading comprehension skills in elementary school students,*" examines the problem in more depth, through the elements of influence.

Parents play a crucial role in their children's development, and their involvement significantly influences the development of reading comprehension skills in elementary school students. Some of the forms and importance of parental involvement are: Shared reading: Regularly reading aloud introduces children with new vocabulary, sentence structures, and different literary styles. Discussing the story, asking questions, and encouraging predictions can help children develop critical thinking and comprehension skills. Providing access to reading materials: Having a variety of books, magazines, and other reading materials at home encourages children to explore different topics and genres. Visiting libraries and bookstores together can foster a love of reading and introduce children to a variety of literature. Engage in reading activities: Playing word games, doing puzzles, and participating in writing activities can strengthen reading skills and make learning more fun. Encourage children to read aloud to others, write stories, and create their own books to build confidence and fluency. Create a model of love for reading: Parents who read regularly demonstrate the value of reading and encourage their children to do the same. Communicate with teachers: Parents should be aware of their children's reading progress and work with teachers to identify their strong and weak sides. Attending school events and parent-teacher conferences can provide valuable insights and opportunities for collaboration. The third paragraph of the second chapter is called "*Organization of work with parents in the development of reading comprehension skills in the modern primary education system: parent-student- teacher collaboration*". Although the involvement of parents

in the educational process and the work done to improve the quality of the student's educational process is perceived as a positive step by schools, this situation cannot function systematically due to the negative reactions from schools, teachers and parents. Today, it is observed that the importance of parents' participation in the educational process is accepted in developed Western countries and is reflected in educational policies. With the legal regulations made on this subject, certain duties have been imposed on schools and parents. However, even if the importance of the issue is understood and reflected in education-related policies, there are some gaps about parents' participation in the educational process. While many parents and educators agree with the fact that parent-school collaboration is important, there are many barriers to parental involvement in educational processes. Many teachers and administrators aren't ready to build and maintain productive relationships with families. Rather than dismissing parental absenteeism as neglect, teachers and administrators should seek to understand the factors that prevent their children from participating in the educational process. The traditional view on this issue is that families with low academic achievement do not participate in school-related activities or do not support the goals of the school. Various terms have been used to describe the interaction between teachers and schools, such as parent involvement, school-family collaboration, and educational partnership. Epstein suggests that the concept of "partnership" is appropriate to describe this interaction. The partnership view is based on Epstein's "Overlapping Spheres of Influence" theory (OSI theory). This theory combines sociological, psychological, and educational perspectives to explain the relationship between parents, schools, and the immediate environment. Epstein identifies three contexts that are considered spheres of influence that affect children's educational processes and socialization. These are family, school, and community. Epstein expresses these three contexts as overlapping domains. It has been reported that harmony between the different domains will maximize the child's overall development.

Learning to read is a critical achievement and both teachers and parents are responsible in this process. *However, it becomes clear*

*that parents have very limited involvement in their children's reading development. There are several reasons for this lack of parental involvement such as lack of time and lack of understanding how to engage with the children in their educational experiences. Parents' such attitude towards the children makes the situation worse and discourage them from learning and prevents development<sup>4</sup>.*

Schools need to find ways to make relationship between the school and home. Schools should also identify and offer a range of strategies and approaches that parents can incorporate to help their children become better readers. In addition, there is a need for planned programs designed by schools to offer workshops and seminars that provide guidance to parents to help them develop their children's reading skills at school and at home. Parents and teachers are important assets in improving children's reading skills. The more informed parents are about their child's reading instruction, the greater the chance that children will achieve optimal reading achievement. Parents can have a huge impact on their children, but unfortunately, not all parents realize the importance and value of their involvement in their child's reading development. There are parents who believe that teaching how to read is the responsibility of the teacher and school, while other parents will do whatever is necessary to provide the necessary support at home for their child who is struggling to read. Parental involvement in learning, especially in reading activities, has been shown to support children's academic achievement. Parental involvement in reading activity significantly increases the child's reading achievement, and parents need support and guidance in this field. In the development of reading comprehension skills, it is necessary to organize pedagogical work with external factors.

The education-parent-teacher-society factors emphasize the collaborative approach necessary to develop reading comprehension in primary education.

Leadership team: It is advisable to regularly provide additional reading with representatives of departments such as teachers, parents,

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<sup>4</sup>Guthrie, J.T., & Wigfield, A. Engagement and motivation in reading. In M.L.Kamil, P.B.Mosenthal, P.D.Pearson, & R.Barr (Eds.), Handbook of reading research. New York & London: Routledge - 2000. p. 403-42

special education, psychologist, library and media content services. Semantic reading skills cannot be developed solely through external influences from the teacher. It is necessary to involve the child himself and those around him (parents and peers, other teachers) in these processes.

One of the main factors is that the main criterion for the development of semantic reading skills is to learn reading on time.

Setting goals: Clear, measurable goals should be set to help students understand what they are reading at grade levels. Overall assessments can be used to track achievement and progress.

Communication strategy: Communication channels such as parent meetings, seminars or online platforms can be developed to share goals and progress with all stakeholders.

The third and final chapter of the dissertation is entitled **“Analysis and summary of the results of surveys on the development of reading comprehension skills in the primary education level”** and contains the main analyses related to the mentioned indicators. Paragraph one is entitled *“The impact of factors on the results of Azerbaijani primary school students in PIRLS 2016. Methodology”*.

According to the 2016 PIRLS, there are a number of factors that affect the reading comprehension skills of grade 4 students. These factors include:

- Home learning environment
- Socio-economic status of school and resources
- School environment
- School safety
- Teacher and school administration readiness
- Classroom instruction
- Student participation and attitude

Home learning environment: According to the PIRLS 2016 report, based on parent surveys, students with more learning resources at home have higher reading achievement than students with fewer resources at home. Parents who spend more time on early literacy activities at home have higher reading achievement for their children. It is noted that the children whose parents enjoy reading perform better

results than the children whose parents read less.

A number of criteria for the home learning environment are described. Children who are more involved in preschool education have achieved better results than children who do not attend preschool education or attend less or no preschool education. Finally, children who are more engaged in early literacy and are more prepared when entering formal education have higher reading outcomes.

Socio-economic status and resources of students involved in school: Among the factors that positively affect the students' reading and comprehension are the fact that students in school come from families with higher and middle socioeconomic status. The impact of resources related to reading in school is also noted to be high for 4th grade students. The presence of basic reading and writing skills before entering formal education is among the factors that positively affect.

School environment: According to reports from school teachers, administrators, parents, and students, a positive school climate has a positive impact on the reading comprehension skills of 4th grade students. If the school supports academic achievement and there is a sense of commitment to the school, it has a positive impact on reading outcomes.

School safety: The lack of behavioral problems and bullying in school has a positive impact on children's reading skills.

Teacher and school leadership training: There is a positive relationship between the level of education and years of experience of teachers and school leaders and children's reading comprehension achievements. Thus, the highest level of education, more experience, and activities related to professional development of teachers have a positive impact on students' reading skills. In addition, the level of education and work experience of school leaders are among the factors that have a positive impact.

Classroom instruction: Time spent on classroom instruction in reading and language, use of comprehension strategies, classroom libraries, content and age-appropriateness of texts, gaps in teacher instruction due to children's circumstances (pre-formal education level, hunger, sleep deprivation, etc.), children's absence from school, use of computers during reading are among the factors that affect

children's reading achievement.

Student engagement and attitude toward reading: Students' active participation in reading activities, satisfaction with reading instruction, enjoyment of reading activities, and greater self-confidence during reading are factors that affect reading achievement.

In this scientific study, learning environment at home was examined as one of the factors that affect the reading comprehension skills of 4th graders.

The home learning environment can be explained by many factors. This can be explained mainly as the creation of various resources and opportunities for children, including the skills and resources of parents to create these opportunities. The participation of parents and children in literacy-related activities together - reading books together, singing songs, and literacy-related games - is described as an active home learning environment.

In this study, we used secondary statistical data from the PIRLS 2016 surveys for analysis. 6,000 students participated in the assessment. Incomplete surveys were removed because the surveys were not completely completed. After the initial survey cleaning, approximately 4,500 respondents' survey were available.

In the second paragraph, titled “*Statistical analysis and results,*” the general parameters of the study have been analyzed and its results have been summarized. It has been noted that cognition, interpretation, and critical evaluation are the key aspects of reading comprehension, especially for primary school students. This study aims to investigate the generalization of these indicators according to different text types (fiction and informational) in the context of Azerbaijani primary school students. Several questions arise here.

1. Do Azerbaijani primary school students demonstrate similar cognitive, interpretive, and critical evaluation skills when reading fiction and informational texts?

2. Are there any differences in the way students respond to and engage with these two types of text?

3. What influence do parents have on the development of reading comprehension?

4. How can teachers effectively assess and develop students' comprehension of different text types?

To generalize these calculations, various methodological factors are brought to the fore. First, the participants are identified. A representative sample of Azerbaijani primary school students from different socio-economic backgrounds is recruited for the study.

Different socio-economic backgrounds is recruited for the study. The students work with two different text passages, one fiction and one informational, appropriate for the students' age level. Standardized assessments are used to measure students' comprehension, interpretation, and critical evaluation skills. Besides that, open-ended questions and interviews are used to collect qualitative data about students' reading process and responses to each text type. Students are then randomly assigned to read either the fiction or informational text. After reading, they complete standardized assessments and participate in open-ended questions or interviews.

Finally, the data are analyzed. Quantitative data from standardized assessments are analyzed using statistical methods to compare student performance related to text types. Qualitative data from open-ended responses and interviews are analyzed using thematic analysis.

The expected outcomes of the assessment are as follows:

- As a result of the study it becomes clear that students demonstrate similar cognitive skills when reading both fiction and informational texts, but their interpretive and critical evaluation skills may differ depending on the type of text.
- Students are able to works fiction texts easier and spending less time rather than informational texts.
- Parents can identify factors that influence students' reading comprehension development and use more effective strategies.
- The results can inform the development of effective assessment strategies that measure students' comprehension of different text types, as well as guide teachers in designing differentiated instruction to promote students' reading development.

Paragraph 3 called “*Measuring the effectiveness of reading comprehension skills in the Azerbaijani primary education system in a global context*” notes that measuring the effectiveness of reading comprehension instruction in Azerbaijan requires a multifaceted

approach that takes into account both national and international criteria. It is necessary first to look at the national context:

Azerbaijan has participated in international assessments such as the International Reading Literacy Study (PIRLS), the Trends in International Mathematics and Science Study (TIMSS) and Program for International Students (PISA). These assessments provide valuable information on the reading comprehension performance of Azerbaijani students compared to their peers in other countries. It is also important to consider the national curriculum and standards: the Azerbaijani primary education curriculum reflects the expected reading comprehension skills for students at different grade levels. Comparing students' performance on standardized tests with these standards allows us to assess the effectiveness of the curriculum. Another important factor is the criteria for teacher training and professional development. Another important factor is the criteria for teacher training and professional development. The quality of reading instruction mainly depends on the training of teachers. It is very important to assess the effectiveness of teacher training programs in providing teachers with the necessary skills and knowledge to develop reading comprehension. One of the most important points here is socio-economic factors. Studies show that socio-economic factors significantly affect the development of reading. Analyzing how factors such as family income and access to educational resources affect reading comprehension can inform interventions. It is also important to consider the global context in measuring the effectiveness of reading comprehension instruction in Azerbaijan:

International benchmarks: PIRLS and TIMSS are valuable tools for comparing Azerbaijan's reading performance with other participating countries. This allows us to identify strong and weak sides and learn from high-performing countries.

International frameworks: International frameworks such as UNESCO's Education 2030 provide a global vision for literacy development<sup>5</sup>.

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<sup>5</sup> Immediate Effects of a Program to Promote School Readiness in Low-Income Children: Results of a Pilot Study / [Electronic resource] // URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4221231/>

Aligning national reading instruction with such frameworks can ensure that Azerbaijani students are in line with global standards. Educational research: Analysis of educational research from around the world can offer valuable insights into effective reading comprehension strategies and interventions. Implementing evidence-based practices can improve the effectiveness of reading instruction in Azerbaijan.

Potential metrics and data sources for measuring the effectiveness of reading comprehension in the Azerbaijani primary education system include:

PIRLS and TIMSS scores: These provide a standardized measure of reading comprehension compared to international peers.

National standardized test scores: These assess students' reading comprehension according to national standards.

Classroom assessments: Teacher-developed assessments can track individual student progress and inform instructional decisions.

Student surveys: Surveys can measure students' attitudes toward reading and identify areas for improvement.

Teacher surveys: Surveys can assess teachers' confidence and readiness in teaching reading comprehension.

## **RESEARCH RESULTS**

This study measured the impact of Home Environments Supporting Learning (HESL), one of the factors influencing reading comprehension skills of Azerbaijani 4th grade students participating in the 2016 Progress in International Reading Literacy Study (PIRLS). The study analyzed the relationship between the variables included in HEPL – parental reading habits, number of books at home, literacy activities with children at home, parental expectations of their children's educational attainment, and parental education and occupation – and 5 dependent variables indicating reading outcomes. According to the analysis:

– Parents' reading habits (like talking about what they read, spend their free time reading, reading is an important activity at home, want to spend more time reading, enjoy reading, reading is their

favorite hobby) - except for the last one, other factors have a positive relationship with the child's reading comprehension.

- Number of books at home (number of books at home, number of children's books at home) - both the total number of books at home and the number of children's books are positively related to all test results in reading comprehension of 4th grade students.

- Literacy activities at home with the child - According to the analysis, reading books to the child at home, telling stories to him, writing letters and words, counting objects, playing with geometric figures, and playing with Legos have a positive effect on students' reading outcomes.

- Parents' educational expectations for their children (completing general secondary education, completing secondary education, completing primary vocational education, completing secondary specialized education, completing a bachelor's degree or equivalent, completing a master's degree or doctoral degree) - according to the results, the higher the parents' expectations regarding the level of education, the higher the reading outcomes of 4th grade students.

- Both mother and father's educational and professional status - the results show that although both mother and father's educational and professional levels generally have a positive impact on children's reading and comprehension skills, fathers' educational and professional status is even more important

The general conclusion of the study is that the following pedagogical principles have been adopted for the development of reading and comprehension skills in primary education classes in Azerbaijan:

1. Addressing the development of reading and comprehension skills with a holistic approach.

The development of reading and comprehension skills is not limited with the development of reading skills alone. These skills are closely related to the development of students' vocabulary, grammar, critical thinking and creative thinking skills. Therefore, a holistic approach should be applied to develop reading and comprehension skills in primary education classes.

2. Starting the development of reading and comprehension skills from an early age: Reading and comprehension skills should be formed in an early age. These skills are closely related to children's language development in the preschool period. Therefore, it is important to support the development of children's reading and comprehension skills before they enter primary education.

3. Supporting the development of reading and comprehension skills by using rich and diverse reading materials: Reading and comprehension skills can be improved by using rich and diverse reading materials. These materials should be appropriate to the interests and developmental levels of students. Various text types (fairy tales, stories, poems, essays, articles, etc.) should be used to support the development of reading and comprehension skills in primary education classes.

4. Supporting the development of reading and comprehension skills through active and participatory learning activities: Reading and comprehension skills can be improved through the use of active and participatory learning activities. These activities allow students to actively participate in the reading process and apply what they have learned. A variety of reading activities (pre-reading, during-reading and post-reading activities) should be used to support the development of reading and comprehension skills in primary education classes.

5. Regular assessment of the development of reading and comprehension skills: Regular assessment of the development of reading and comprehension skills is important to monitor students' progress in these skills. These assessments should cover students' reading skills, vocabulary, grammar, critical thinking and creative thinking skills.

In conclusion, it should be noted that the pedagogical foundations of developing students' reading and comprehension skills in primary school are relevant for every period in which writing was created, became a means of communication and was transmitted to other generations in written form, and continue to develop in accordance with their time and remain one of the basic criteria in the science of pedagogy.

**The following articles and theses reflecting the content, main scientific ideas and results of the candidate's dissertation have been published:**

1. Impact of Home Learning Environment on the Reading Comprehension Skills of the 4th graders in Azerbaijan /XXV Republican Scientific Conference of Doctoral Students and Young Researchers (NASCO XXV), – Baku, – 2022. – p. 187-191.

2. Qualitative teacher instruction relation with reading comprehension ability at preschool age // KIX EAP HUB Regional Conference 1ST KIX Educational Policy and Innovation Conference, – Canada, – 2022.

3. The Role of Parents in Developing Reading Comprehension Skills in Primary School Students // – Moscow: Municipal Education: Innovations and Experiment, – 2023. No. 5 (92), – p. 71-74.

4. Impact of parental educational level and occupation status on reading comprehension of 4<sup>th</sup> grade students in Azerbaijan // – Baku: Preschool and primary education, – 2024. No. 1, – p. 67-82.

5. The role of parents in the development of reading comprehension skills in primary school students // – Baku: Scientific works of the University of Baku Girls, – 2024. № 1, – p. 62-67.

6. Methodological approaches to the content of reading comprehension // – Baku: Curriculum journal, – 2024. № 3, – p. 72-75.

7. Theoretical foundations of effective learning in preschool education // – Baku: ASPU “News of the Pedagogical University Humanitarian, social and pedagogical-psychological sciences series”, – 2024. № 2, – p. 206-212.

8. Theoretical indicators of modern international pedagogical methods and techniques of reading comprehension skills // – Baku: Scientific works of the Institute of Education of the Republic of Azerbaijan, – 2024. № 2, – p. 139-143.

9. The influence of external factors on the development of reading comprehension skills in the primary education system // – Baku: Azerbaijan School, – 2024. No. 1, – p.49-54.

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A handwritten signature in blue ink, appearing to be 'Ruz', is centered on a light gray background.

The defense will be held on the 19<sup>th</sup> of September 2025 at 10 at the meeting of FD 2.40 Dissertation council of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating Nakhchivan Teachers Institute.

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