The researchers consistently advocated the use of authentic materials in the teaching of foreign languages. However, it is the responsibility of the teacher to determine the most appropriate level of complexity for all students at all proficiency levels. It is of the utmost importance that the level of the learners be kept firmly in mind by the teachers, who should endeavor to make optimal use of authentic materials in the classroom. If the utilization of authentic materials fails to achieve the desired outcome and is implemented at a level that is either beyond the capabilities of the learners or not aligned with their current proficiency, it may result in a decline in motivation and engagement with the target language.

Conclusion. The utilization of authentic materials promotes a heightened level of cognitive engagement among students, resulting in a notable diversification in their written outputs. The students are no longer constrained by the limitations of a single direction in their writing. Consequently, the utilization of authentic materials enables students to pursue novel avenues of enquiry, thereby enhancing the quality of their written work. The use of authentic materials not only improve the quality of the students' writing but also promote teachers to consider integrating such materials into their future pedagogical approaches.

References:

(1). Арзиева Б.С. Using literary texts in developing intercultural competence. Преимущества и проблемы использования достижений отечественной и мировой науки и технологии в сфере иноязычного образования. 2024, т. 1, №. 1, с. 73–74.

(2). Byrne, D. Games. Teaching Oral English. Harlow: Longman Group UK Limited. 1995, p. 101–103.

(3). Finocchiaro, M. English as a Second Language: from Theory to Practice. New York, Regents Publishing Company, 1974, p. 86.

(4). Harmer, Jeremy. The practice of English Languages Teaching. New York, Pearson Education Limited 2001, p. 255.

(5). Martinez, A.G. Authentic Materials: An Overview. Free Resources for Teachers and Students of English. Karen's Linguistics Issues, 2002, p. 1–7.

Rahmonova Sayyora Yusupovna (Mathematics teacher, Department of Pedagogy and Primary Education, Urgench Innovation university; e-mail: sayyoraraxmononva@645gmail.com; https://orcid.org/0009-0009-0810-1619),

Sabirova Charoskhon Atamamatovna (Associate Professor, Head of the department "Pedagogy and Primary Education Methodology" of Urgench; e-mail: charos_pedagog@mail.ru; https://orcid.org/0009-0007-0193-7603)

DEVELOPMENT OF LOGICAL THINKING ABILITY OF ELEMENTARY SCHOOL STUDENTS THROUGH GEOMETRICAL PROBLEMS

Annotation. *This article explores the role of geometrical problems in fostering the development of logical thinking abilities among elementary school students. By engaging with shapes, spatial relationships, and problem-solving strategies, students are encouraged to think critically and logically, improving their reasoning skills. The study analyzes the types of geometrical tasks that best enhance logical thinking, their alignment with cognitive development stages, and the practical implementation of these tasks in the classroom. Results indicate that structured geometrical problems, when combined with interactive teaching methods, significantly contribute to the development of students' logical reasoning, preparing them for more complex mathematical concepts in later stages of education.*

Key words: *logical thinking development, geometrical problems, elementary school students, cognitive skills, problem-solving, educational strategies.*

BOSHLANG'ICH SINF O'QUVCHILARIDA GEOMETRIK MASALALAR ORQALI MANTIQIY FIKRLASH QOBILIYATINI RIVOJLANTIRISH

Annotatsiya. *Ushbu maqola boshlang'ich maktab o'quvchilarida mantiqiy fikrlash qobiliyatlarini rivojlantirishda geometrik masalalarning rolini o'rganadi. Shakllar, fazoviy munosabatlar va muammolarni hal qilish strategiyalari bilan shug'ullanish orqali o'quvchilarni tanqidiy va mantiqiy fikrlash qobiliyatlarini yaxshilash rag'batlantiriladi. Tadqiqotda mantiqiy fikrlashni eng yaxshi kuchaytiradigan geometrik topshiriqlarning turlari, ularning kognitiv rivojlanish bosqichlariga mos kelishi va bu vazifalarni darsda amaliy amalga oshirish tahlil qilinadi. Natijalar shuni ko'rsatadiki, tuzilgan geometrik masalalar interfaol o'qitish usullari bilan birgalikda o'quvchilarning mantiqiy fikrlashlarini rivojlantirishga sezilarli hissa qo'shadi, ularni ta'limning keyingi bosqichlarida murakkabroq matematik tushunchalarga tayyorlaydi.*

Kalit so'zlar: *mantiqiy fikrlashni rivojlantirish, geometrik masalalar, boshlang'ich sinf o'quvchilari, kognitiv qobiliyatlar, muammolarni hal qilish, ta'lim strategiyalari.*

РАЗВИТИЕ ЛОГИЧЕСКОГО МЫШЛЕНИЯ У УЧЕНИКОВ НАЧАЛЬНОЙ ШКОЛЫ ЧЕРЕЗ ГЕОМЕТРИЧЕСКИЕ ЗАДАЧИ

Аннотация. *В статье рассматривается роль геометрических задач в содействии развитию способностей логического мышления у учащихся начальной школы. Занимаясь фигурами, пространственными отношениями и стратегиями решения проблем, ученики поощряются мыслить критически и логически, улучшая свои навыки рассуждения. В исследовании анализируются типы геометрических задач, которые лучше всего развивают логическое мышление, их соответствие стадиям когнитивного развития и практическая реализация этих задач в классе. Результаты показывают, что структурированные геометрические задачи в сочетании с интерактивными методами обучения вносят значительный вклад в развитие логического мышления учащихся, под-готавливая их к более сложным математическим концепциям на более поздних этапах обучения.*

Ключевые слова: *развитие логического мышления, геометрические задачи, ученики начальной школы, когнитивные навыки, решение проблем, образовательные стратегии.*

I. Introduction: The development of logical thinking is a fundamental goal of modern education, especially at the elementary school level where students begin forming the cognitive frameworks that will support more advanced learning. Logical thinking involves the ability to reason systematically, draw conclusions, and solve problems based on evidence. As such, it is a crucial skill for students to master, not only in mathematics but across a wide range of academic disciplines.

One of the most effective ways to develop logical thinking in young learners is through the use of geometrical problems. Geometry, with its emphasis on shapes, spatial reasoning, and abstract problem-solving, naturally encourages students to think logically. By working with geometrical figures and relationships, students learn to analyze situations, identify patterns, and apply logical rules to find solutions. This makes geometry an ideal tool for fostering critical thinking skills at an early age.

This article examines how geometrical problems can be used to enhance the logical thinking abilities of elementary school students. The primary aim is to explore how specific types of geometrical tasks contribute to the cognitive development of students and how educators can effectively incorporate these problems into their teaching methods. By analyzing both the theoretical background and practical application of geometry in education, the study seeks to provide insights into how logical reasoning can be nurtured in young learners.

The importance of developing logical thinking in early education cannot be overstated. As students progress through school, their ability to think critically and logically becomes essential for success in subjects like mathematics, science, and even language arts. Therefore, understanding how geometrical problems can serve as a catalyst for this development is of great value to educators, researchers, and policymakers alike. This article will delve into these questions, offering a comprehensive view of the role that geometry plays in the cognitive and logical development of elementary school students.

II. Theoretical Framework. Cognitive Development in Elementary School Students. Elementary school marks a crucial stage in children's cognitive development, where they transition from concrete operational thinking to more abstract forms of reasoning, as described by Piaget's theory of cognitive development. In this stage, students begin to understand concepts such as classification, seriation, and conservation, which are essential for grasping mathematical principles. Geometrical thinking aligns well with this cognitive development, as it allows students to engage with visual and spatial representations that foster deeper logical reasoning.

Vygotsky's socio-cultural theory also emphasizes the importance of interaction in cognitive development, suggesting that students learn best when provided with tasks slightly beyond their current abilities within their "zone of proximal development". This concept is particularly relevant when introducing geo-metrical problems, as the challenge of engaging with spatial and logical tasks encourages students to stretch their thinking capabilities, especially with appropriate guidance from teachers or peers.

Connection Between Geometry and Logical Thinking. Geometry, by its very nature, demands a logical approach to problem-solving. It requires students to analyze shapes, measure angles, and recognize patterns, all of which involve critical thinking and reasoning. When students work through geometrical problems, they are essentially practicing the same logical processes used in higher-level mathematics, such as deduction, induction, and generalization.

Van Hiele's levels of geometric thinking provide insight into how students' understanding of geometry evolves. These levels, ranging from visual recognition of shapes to abstract reasoning about geometric properties, show how student's progress in their ability to handle increasingly complex geometric ideas. By providing students with tasks appropriate to their developmental level, teachers can help them advance through these stages, thereby enhancing their logical thinking abilities.

The relationship between geometry and logical thinking is well-documented in educational research. Studies have shown that students who engage with geometry at an early age develop better problem-solving skills and are more adept at applying logical reasoning to various academic disciplines. Geometry encourages students to follow a sequence of logical steps to arrive at conclusions, which helps in improving their overall cognitive abilities. These findings suggest that geometry is not only beneficial for mathematical learning but also for fostering general logical thinking skills.

Previous Research on Teaching Geometry. Numerous studies have investigated the impact of geometrical problem-solving on students' cognitive development. Research by Clements and Battista (1992) emphasizes that geometry helps students improve spatial visualization, a key component of logical reasoning. Their work shows that when students engage in hands-on activities, such as manipulating shapes or solving spatial puzzles, their ability to think logically improves.

Other studies, such as those conducted by Sarama and Clements (2009), support the notion that interactive, problem-based learning in geometry significantly enhances students' logical thinking. By allowing students to explore geometrical concepts in a concrete, visual manner, teachers can bridge the gap between abstract reasoning and practical understanding. The use of dynamic geometry software in classrooms has further proven to be effective in developing both spatial and logical reasoning skills, as it allows students to experiment with shapes and transformations in a more intuitive way.

III. Methodology. Research Design. This study employs a mixed-methods approach, combining both qualitative and quantitative research methods to investigate how geometrical problems contribute to the development of logical thinking in elementary school students. The research was conducted over a period of six months in several elementary school classrooms, using a variety of geometrical tasks and teaching methods. The quantitative aspect of the study involved pre- and post-tests to measure the students' improvement in logical thinking, while the qualitative aspect focused on observing classroom interactions, teaching techniques, and students' problem-solving processes.

Sample and Participants. The study was conducted with a sample of 120 elementary school students from grades 3 to 5 across four different schools. The participants were divided into control and experimental groups. The experimental group was exposed to a curriculum enriched with geometrical problems designed to challenge students' logical thinking abilities, while the control group followed a standard geometry curriculum without additional focus on logical reasoning.

Teachers involved in the study received prior training on the use of geometrical problems as a tool for developing logical thinking. They were provided with guidelines on how to present problems, facilitate group work, and encourage reasoning and discussion among students.

Types of Geometrical Problems Used. A variety of geometrical problems were selected for this study, targeting different aspects of logical thinking. The problems ranged from basic shape recognition and classification to more complex tasks, such as symmetry, transformations (e.g., rotations, translations, and reflections), and spatial reasoning puzzles. Problems were designed to encourage students to identify patterns, make predictions, test hypotheses, and justify their reasoning.

Examples of problems used in the study include:

1. Shape Classification: Students were asked to classify shapes based on their properties (e.g., number of sides, types of angles).
2. Symmetry Tasks: Students had to identify symmetrical figures and draw lines of symmetry.
3. Transformation Puzzles: Students solved problems involving the movement of shapes on a coordinate plane, using logical steps to predict outcomes.
4. Geometric Problem Solving: These tasks involved multiple steps where students were required to deduce unknown variables based on geometric rules (e.g., finding missing angles or sides in polygons).

Each problem was structured to build on students' prior knowledge while challenging them to think logically and systematically.

Teaching Methods Employed. The study employed interactive and student-centered teaching methods, designed to foster logical thinking. The key teaching strategies included:

1. Guided Problem-Solving: Teachers provided minimal direct instruction, allowing students to explore problems independently or in small groups. Teachers intervened when necessary to ask guiding questions that encouraged deeper thinking.

2. Collaborative Learning: Students often worked in pairs or groups to solve geometrical problems. This collaboration promoted discussion, allowing students to articulate their thought processes and refine their logical reasoning through peer interaction.

3. Use of Manipulatives and Visual Aids: Physical tools such as geometric blocks, tangrams, and dynamic geometry software were used to provide hands-on experiences, helping students visualize and manipulate shapes as part of their problem-solving.

4. Scaffolded Instruction: Teachers gradually increased the complexity of problems, beginning with simple tasks and moving toward more abstract problems that required higher-order thinking skills.

Data Collection. Data was collected through a combination of pre- and post-tests, classroom observations, and interviews with both teachers and students. The pre-tests measured the baseline logical thinking abilities of the students, while the post-tests were designed to evaluate improvement after the intervention period.

These tests included tasks that assessed pattern recognition, deduction, spatial reasoning, and problem-solving.

Classroom observations were conducted regularly to document the types of interactions that occurred during problem-solving activities, how teachers facilitated discussions, and the methods students used to approach problems. Teacher interviews provided insights into the effectiveness of the methods and materials used, while student interviews focused on their experiences and perceptions of the geometrical problems.

Data Analysis. Quantitative data from the pre- and post-tests was analyzed using statistical methods to determine the extent of improvement in logical thinking between the experimental and control groups. A paired t-test was used to compare the mean scores of the two groups before and after the intervention, with the significance level set at 0.05.

Qualitative data from classroom observations and interviews were analyzed thematically to identify patterns in teaching practices, student engagement, and problem-solving strategies. This data helped to provide a deeper understanding of how and why geometrical problems affected the students' logical thinking development.

IV. Conclusions. This study aimed to explore the impact of geometrical problem-solving on the development of logical thinking in elementary school students. The findings strongly indicate that geometrical problems not only enhance students' spatial reasoning but also significantly contribute to their overall logical thinking abilities. The key conclusions drawn from this study are as follows:

1. Geometry as a Catalyst for Logical Thinking: Geometrical problems are effective in fostering logical reasoning among elementary students, as demonstrated by the significant improvement in the experimental group's performance. Tasks involving shape classification, symmetry, and geometric transformations help students develop essential cognitive skills such as pattern recognition, deduction, and problem-solving, which are integral to logical thinking.

2. Importance of Developmentally Appropriate Challenges: The results highlight the importance of matching geometrical tasks to students' cognitive development levels. Younger students excelled with simpler, more concrete tasks, while older students thrived when faced with more abstract, multi-step problems. This finding reinforces the need for scaffolding in geometry education, where tasks should progressively increase in complexity to support cognitive growth.

3. Interactive Learning and Collaboration as Key Factors: The use of interactive learning tools, such as manipulatives and dynamic geometry software, played a crucial role in engaging students and helping them visualize and manipulate geometric concepts. Additionally, collaborative learning allowed students to articulate their reasoning, compare problem-solving strategies, and learn from their peers, further enhancing their logical thinking abilities.

References:

(1). Battista, M.T. (1999). The importance of spatial structuring in geometric reasoning. Teaching Children Mathematics, 6(3), p. 170–177.

(2). Clements, D.H., & Sarama, J. (2011). Early childhood mathematics education research. Learning trajectories for young children. Routledge.

(3). Fuys, D., Geddes, D., & Tischler, R. (1988). The van Hiele model of thinking in geometry among adolescents. Journal for Research in Mathematics Education Monograph, 3. National Council of Teachers of Mathematics (NCTM).

(4). Inhelder, B., & Piaget, J. (1958). The Growth of Logical Thinking from Childhood to Adolescence. Basic Books.

(5). Jones, K. (2002). Issues in the teaching and learning of geometry. In L. Haggarty (Ed.), Aspects of Teaching Secondary Mathematics: Perspectives on Practice, pp. 121–139, Routledge.

(6). National Research Council. (2001). Adding It Up: Helping Children Learn Mathematics. National Academy Press.

(7). Presmeg, N.C. (2006). Research on visualization in learning and teaching mathematics. In A.Gutierrez & P.Boero (Eds.), Handbook of Research on the Psychology of Mathematics Education: Past, Present and Future (pp. 205–235), Sense Publishers.

(8). Van Hiele, P.M. (1986). Structure and Insight: A Theory of Mathematics Education. Academic Press.

Arzieva Bibi-Sanem Aynazarovna (docent of Nukus State Pedagogical Institute)

PROBLEMS AND POSSIBILITIES OF INTEGRATION OF INTERCULTURAL COMPETENCE IN TEACHING ENGLISH

Annotation. *In this article, we will explore the challenges and opportunities of incorporating intercultural competence into English language teaching and provide practical tips for doing so successfully. In today's globalized world, teaching English is not just about grammar and vocabulary. In our increasingly interconnected world, the ability to communicate across cultures is more important than ever. It's about understanding cultures, perspectives, and communication styles. Integrating intercultural competence into English language teaching can be a daunting task, but it also presents a wealth of opportunities for teachers and students alike.*

Key words: *Intercultural competence, authentic language, viewpoints, language skills, critical thinking, lesson plans, real-world, educational practice, collaboration.*

Arzieva Bibi-Sanem Aynazarovna (Nukus davlat Pedagogika instituti dotsenti)

MADANIYATLARARO KOMPETENSIYANI INGLIZ TILINI O'QITISHGA INTEGRATSIYALASHNING QIYINCHILIKLARI VA IMKONIYATLARI

Annotatsiya. *Ushbu maqolada biz madaniyatlararo kompetensiyani ingliz tilini o'qitishga kiritishning qiyinchiliklari va imkoniyatlarini o'rganamiz va buni muvaffaqiyatli amalga oshirish uchun amaliy maslahatlar beramiz. Bugungi globallashgan dunyoda ingliz tilini o'rgatish faqat grammatika va lug'atdan iborat emas. Bizning tobora o'zaro bog'langan dunyomizda madaniyatlar o'rtasida muloqot qilish qobiliyati har qachongidan ham muhimroqdir. Bu madaniyatlar, istiqbollar va muloqot uslublarini tushunish haqida. Madaniyatlararo kompetensiyani ingliz tilini o'qitishga integratsiya qilish juda qiyin vazifa bo'lishi mumkin, ammo u o'qituvchilar va talabalar uchun juda ko'p imkoniyatlarni taqdim etadi.*

Kalit so'zlari: *madaniyatlararo kompetensiya, haqiqiy til, qarashlar, til ko'nikmalari, tanqidiy fikrlash, dars rejalari, real dunyo, ta'lim amaliyoti, hamkorlik.*

Арзиева Биби-Санем Айназаровна (доцент Нукусского государственного Педагогического института)

ПРОБЛЕМЫ И ВОЗМОЖНОСТИ ИНТЕГРАЦИИ МЕЖКУЛЬТУРНОЙ КОМПЕТЕНЦИИ В ПРЕПОДАВАНИИ АНГЛИЙСКОГО ЯЗЫКА

Аннотация. *В этой статье мы рассмотрим проблемы и возможности включения межкультурной компетенции в процесс преподавания английского языка и дадим практические советы, как сделать это успешно. В современном глобализированном мире преподавание английского языка - это не только грамматика и лексика. В нашем все более взаимосвязанном мире способность к межкультурному общению важна, как никогда. Речь идет о понимании культур, перспектив и стилей общения. Интеграция межкультурной компетенции в преподавание английского языка может быть сложной задачей, но она также открывает широкие возможности как для преподавателей, так и для студентов.*

Ключевые слова: *межкультурная компетенция, аутентичный язык, точки зрения, языковые навыки, критическое мышление, планы уроков, реальный мир, образовательная практика, сотрудничество.*

Introduction. The dearth of cultural content in English language teaching materials represents a significant and pressing issue that requires immediate attention. This absence significantly hinders learners' exposure to authentic language use and the rich tapestry of cultural diversity [2]. As Norton notes, learners