

**THE ROLE OF MOTHER TONGUE IN THE DEVELOPMENT OF LOGICAL  
THINKING SKILLS OF PRIMARY SCHOOL STUDENTS**

**Ortiqova Dilsabo Munavvarjon kizi**

2nd year student of TDPU named after Nizomi

**Annotatsiya:** Ushbu maqolada biz boshlang'ich sinf o'quvchilarining mantiqiy fikrlash qobiliyatini oshirishda ona tili fanining ahamiyatini o'rganamiz. Ona tili fanining o'rganish uchun tanish va qulay platforma yaratishi, izlanishga asoslangan izlanishlarni rag'batlantirishi va tanqidiy fikrlashni targ'ib qilishini o'rganish orqali biz ona tili fanining yosh o'quvchilarning kognitiv rivojlanishiga tas'irini hamda boshlang'ich sinf o'quvchilarining mantiqiy fikrlash qobiliyatlarini shakllantirishda ona tili fanining o'rni va ularning o'quv muvaffaqiyati va intellektual o'sishiga ta'sirini chuqurroq o'rganamiz.

**Kalit so'zlar:** Boshlang'ich sinf, ta'lim, mantiqiy fikrlash, ona tili, aqliy hujum, kognitiv rivojlanish.

**Аннотация:** В данной статье мы изучаем значение изучения родного языка в совершенствовании навыков логического мышления учащихся начальной школы. Исследуя, как преподавание родного языка создает знакомую и доступную платформу для обучения, поощряет исследовательские исследования и способствует критическому мышлению, мы изучаем влияние преподавания родного языка на когнитивное развитие младших школьников и обучение в начальной школе мы будем углубленно изучать роль науки о родном языке в формировании навыков логического мышления учащихся и их влияние на академические успехи и интеллектуальный рост.

**Ключевые слова:** Начальная школа, образование, логическое мышление, родной язык, мозговой штурм, познавательное развитие.

**Abstract:** In this article, we study the importance of mother tongue science in improving the logical thinking skills of elementary school students. By examining how mother tongue teaching creates a familiar and accessible platform for learning, encourages inquiry-based inquiry, and promotes critical thinking, we examine the effects of mother tongue teaching on the cognitive development of young learners and elementary school learning we will study in depth the role of mother tongue science in the formation of students' logical thinking skills and their impact on academic success and intellectual growth.

**Key words:** Elementary school, education, logical thinking, native language, brainstorming, cognitive development.

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## **INTRODUCTION.**

Elementary school education serves as a foundation for students' cognitive development and academic growth. One important aspect of this development is the development of logical thinking skills necessary for problem solving, decision making, and analytical thinking. It is well known that traditional subjects such as math and science foster logical thinking, but the role of mother tongue subjects in fostering these skills is often underestimated. Mother tongue science, which is related to the teaching of scientific concepts in the native language of students, is important in the development of logical thinking skills in primary school students.

## **MATERIALS AND METHODS.**

The development of logical thinking is a crucial aspect of the cognitive development of primary school students. Logical thinking skills enable students to analyze information, make connections, solve problems, and think critically. Although traditional subjects such as mathematics and science are often associated with logical thinking, the role of mother tongue science in developing logical thinking skills should not be overlooked. Mother tongue science, which involves teaching scientific concepts in students' native language, can significantly contribute to the development of logical thinking skills in elementary school students. Mother tongue science deals with scientific concepts, theories and experiments for students provides a familiar and convenient platform for engagement. By learning scientific principles in their native language, students can better understand complex ideas, ask questions, and actively participate in scientific discussions. This exposure to the language of instruction creates a supportive learning environment that encourages students to explore, experiment, and use logical thinking to solve scientific problems. Mother tongue science bridges the gap between abstract scientific concepts and real-world applications helps to do. By connecting scientific knowledge with everyday experiences and events familiar to students, the mother tongue makes science learning relevant and meaningful. This connection allows students to gain a deeper understanding of scientific principles and encourages them to think logically and critically about the world around them. Mother tongue science plays an important role in developing the logical thinking ability of elementary school students using various tools. First, it encourages students to ask questions, make observations, and formulate hypotheses based on their understanding of scientific concepts. This inquiry-based learning process develops students' logical thinking skills in analyzing data, drawing conclusions, and evaluating their results develops problem-solving skills. As students engage in hands-on activities and experiences in their native language, students learn to use logical reasoning to identify patterns, make predictions, and draw logical conclusions. Science fosters communication and collaboration among students, allowing them to discuss scientific concepts, share ideas, and work together to solve problems.

Through group discussions, presentations, and collaborative projects, students develop logical thinking skills by expressing their opinions, listening to others' points of view, and engaging in constructive dialogue. Teaching science in students' native language creates a sense of familiarity and comfort. Students are more likely to engage with and understand complex scientific concepts when presented in a language they are familiar with. This familiarity reduces language barriers and allows students to focus on understanding scientific content.[5]

## **RESULTS AND DISCUSSIONS.**

By using the mother tongue, teachers can communicate scientific ideas and principles more clearly. Students can understand the meaning of scientific terms and explanations without struggling to understand the language. This clarity of communication enhances students' understanding of science concepts and promotes effective learning. Mother tongue studies include cultural references and contexts familiar to students. By connecting scientific concepts to their own cultural backgrounds and experiences, students can better relate to the material and see the relevance of science to their everyday lives. This cultural relevance makes science more interesting and meaningful for elementary students. Learning science in their mother tongue helps students build a solid foundation of scientific vocabulary. By understanding and using scientific terms in their native language, students can develop a strong scientific vocabulary, which is essential for understanding and discussing complex scientific ideas. When science concepts are presented in their mother tongue, students can understand the material learned more easily. They

can relate new information to their existing knowledge and experience, leading to deeper understanding and retention of scientific concepts.[1]

This improved understanding fosters a positive attitude toward science and encourages further exploration and learning. In general, mother tongue science provides a familiar and comfortable learning environment for elementary students, promotes clear communication, makes science more accessible by incorporating cultural relevance, developing vocabulary, and enhancing understanding of scientific concepts. Educators can effectively use the power of their mother tongue to engage students in learning science and train their logical thinking skills. Teaching science in students' native language encourages them to ask questions and search for answers independently. When students can express themselves freely in their native language, they are more likely to inquire about scientific phenomena, explore concepts, and propose hypotheses. This question-and-answer mindset is essential to inquiry-based learning. Mother tongue studies develop critical thinking skills by encouraging students to analyze data, evaluate evidence, and draw conclusions in their native language. Through inquiry-based activities, students learn to think critically, solve problems, and make decisions based on evidence and reasoning. When students study science in their mother tongue, they can effectively communicate their ideas, observations, and findings. Students collaborate, discuss, and present their research in a language they are familiar with, as this communication skill is essential to inquiry-based inquiry.[2]

Clear communication improves the exchange of ideas and promotes collaborative learning. Mother tongue science empowers students to take ownership of their learning and research. Students develop a sense of competence and independence in scientific research by conducting experiments, collecting data and analyzing results in their native language. Such opportunities encourage students to independently learn and discover scientific concepts. Integrating students' cultural backgrounds and experiences into science-related inquiry conducted in their mother tongue adds relevance and context to their learning. By connecting scientific concepts to their cultural context, students see real-life applications of science and are encouraged to explore further. This cultural relevance enhances the authenticity of the inquiry-based learning experience. Native language science engages students in meaningful and authentic research that matches their interests and experiences. By conducting research in their native language, students are more encouraged to explore, experiment, and discover, leading to a deeper understanding and appreciation of science concepts. In general, mother tongue science is a question-and-answer , promotes inquiry-based learning in students by promoting critical thinking, effective communication, student empowerment, cultural engagement, and engagement. By using students' mother tongue in science education, teachers can create a comfortable environment that develops students' interest, research and discoveries in scientific research.[3]

## **CONCLUSION.**

In conclusion, it can be said that mother tongue science is of great importance in the development of logical thinking skills in elementary school students. By providing a familiar and comfortable learning environment, mother tongue science allows students to engage with scientific concepts, apply logical reasoning, and develop critical thinking skills. Educators should recognize the importance of incorporating mother tongue science into the curriculum to enhance students' cognitive development, instill a love of science, and foster logical thinking skills. By integrating mother tongue subjects into elementary school education, teachers can make students curious, analytical, and logical thinkers, better equipped to navigate the complexities of the modern world.[4]

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