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# Creating and Developing Geographical Thinking in Minors

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**Abstract**

Humans are born with all their inherent abilities, which begin to emerge and develop through the support and guidance of adults in the family. This article explores how a child's abilities are identified and shaped in harmony within the environment they live in. This environment can be categorised into distinct settings such as family, kindergarten, school, university, and society. Each of these plays a unique role in nurturing the child's potential. However, the most crucial environment lies within the child's own inner world. Through their desires and emotions, children observe and interpret their surroundings, refine their abilities, recognise patterns, and cultivate geographical thinking.

The discovery of a child's abilities is deeply influenced by the education, worldview, character, life experience, desires, and attitudes of the adults around them. The article illustrates how it is possible to foster a protective attitude towards nature and its resources while simultaneously developing geographical thinking. From an early age, children display research skills and begin to comprehend spatial environments. As they mature, this knowledge and skillset evolves into geographical thinking—a foundation for the modern vision of a green and peaceful planet.

**Keywords:** development of skills, geographical thinking, geographical culture, geographical imagination, formation of thinking

## 1. Introduction

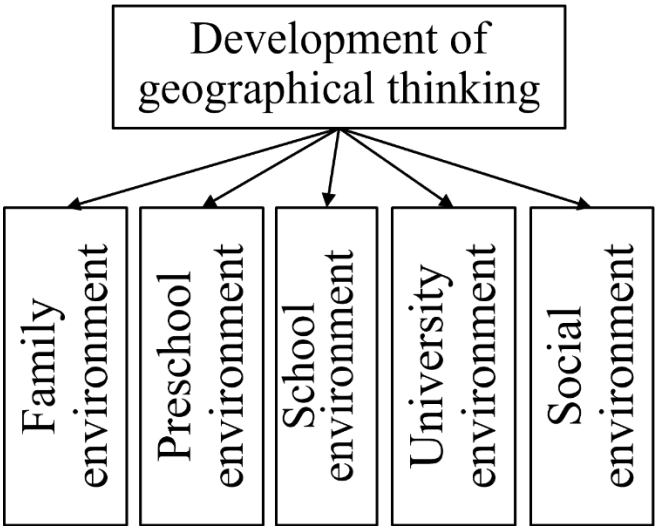
Examining the fundamental aspects of geography reveals that an individual's engagement with the subject commences at birth. In this manner, geography imparts an understanding of the environment and the natural world. Individuals are born, mature, and develop within their surrounding environment, coming into direct contact with it through nature. From the moment they open their eyes to the world, children begin to familiarise themselves with their surroundings, studying and directly investigating them. Children are born with an innate capacity to investigate, an ability that prompts them to explore the environment around them. Their eyes, ears, hands, and mouth serve as tools for this research. They visually examine everything they perceive. Through their ears, they begin to listen to the diverse sounds of people and objects, learning to distinguish between them. They touch observed items with their hands, examining them through tactile sensation: discerning qualities such as hardness, softness, warmth, and coldness. They also tend to taste many things they touch. Utilising these abilities, their initial examinations are often confined to their immediate vicinity, such as their bed. As they learn to stand and walk, their exploration progressively expands to their room and, sequentially, to other areas of their dwelling. Everything within the home captures their attention, prompting them to explore these items and learn through environmental observation. These behaviours underscore children's inherent research capabilities from an early age.

To discern the abilities of young children, understand their process of independently acquiring geographical knowledge and skills, and foster the development of geographical thinking, we conducted observations involving a number of children. We held interviews with mothers. Furthermore, we organised a questionnaire survey with geography teachers. We studied various family environments and their respective attitudes towards cultivating children's geographical skills. We identified the methods employed by geography teachers to encourage the formation of geographical thinking in young children. We also conducted geographical experiments with

selected children; our objective was to observe how these children approached given tasks, the skills they demonstrated, and the progressive formation of their geographical thinking.

**2. Discussion and Analysis**

The Holy Quran states that when God created humans, He endowed them with all faculties [The Qur'an, 1999]. Thus, a healthy child is born with inherent capabilities—these simply need to be recognised and nurtured at the right time. To explore this further, we first identified and categorised the key environments that shape children's abilities (see Scheme 1).




Scheme 1. Development of Geographical Thinking

**1. Family environment:** The first and most direct influence on a child's development. Parents and other household members play a pivotal role in recognising and cultivating the child's abilities.

**2. Preschool environment:** Under teachers' guidance, children interact with peers and develop various skills. Structured programmes introduce knowledge, and field trips may supplement learning. Kindergartens also prepare children for school, though not all attend.

**3. School environment:** A long-term setting where abilities are professionally identified and refined by qualified educators. As compulsory education includes all children, this environment is universal.

**4. University (college or vocational school) environment:** This helps young people hone their abilities and expand their thinking. However, not all secondary school graduates progress to this stage.

**5. Social environment:** Society at large, which has both positive and negative effects on ability development. Lifelong interaction with this environment is inevitable.

To delve deeper, we analysed how each environment contributes to children's abilities and geographical thinking. This article focuses specifically on the family environment.

*2.1* The **family environment** is foundational in developing geographical thinking. Parents' education, world-view, personality, life experiences, attitudes, and values directly shape this development. Interviews with mothers highlighted two contrasting character types among children:

Mother I: "My six-month-old son is constantly in motion - he turns the house upside down with his endless exploration. I exhaust myself trying to keep up with him and can't leave him unattended for even a moment."

In contrast, Mother II noted: "My one-year-old is very well-behaved. He stays exactly where I place him and never causes any trouble."

These accounts reveal fundamentally different behavioural patterns. The first child demonstrates high activity levels and natural curiosity - clear indicators of strong investigative instincts. While this suggests healthy cognitive development, the mother perceives it as challenging due to the demanding supervision required. The

second child displays notable passivity, which could potentially indicate delayed developmental progress, though the mother interprets this calm demeanour positively.

Family environments further diverge between rural and urban contexts. Our research identified significant differences in maternal attitudes and approaches to child-rearing based on geographical location, as detailed in Table 1.

Table 1. Attitudes towards children in rural vs. urban settings

| No. | **Urban environment** | | **Rural environment** | |
|---|---|---|---|---|
| | **Urban mother** | **Result** | **Rural mother** | **Result** |
| 1. | "Don’t run, you’ll fall!" | The child fears running; becomes passive. | "Go bring back the lambs!" | The child runs freely; is active. |
| 2. | "It’s cold outside, don’t go out!" | The child fears changes in weather. | "Put on something warm, it’s cold outside." | The child learns how to act in cold weather. |
| 3. | "It’s snowing heavily, stay indoors or you’ll get sick." | Snow is seen as a source of illness. | "Thick snow protects the soil—we're gonna have a good harvest." | Children learn the benefits of snow. |
| 4. | "There’s too much snow, we can’t walk outside." | Children learn that snow is a hindrance. | "Go shake the snow off the branches or it'll break 'em." | Children gain practical agricultural skills. |

As we can see, approaches to natural phenomena and the development of geographical thinking vary markedly between urban and rural environments. Children raised in rural areas typically demonstrate greater physical activity and acquire more extensive geographical knowledge and practical skills. In these settings, parents frequently serve as informal educators, facilitating children’s adaptation to diverse environments. Crucially, regardless of location, the family environment remains pivotal in shaping a child’s geographical understanding, with parental care, world-view, time investment, and life skills all contributing significantly to this development [Khatam al-Anbiya, 1993].

*2.2* Children's acquisition of geographical knowledge and skills from an early age depends on their personal qualities and the attitude of adults in the family towards the child. For this reason, we observed several children raised in different families. First, the mothers confirmed that all children were born physically healthy. The seven children in our study come from internally displaced families and were all physically healthy. Aged between 3 and 5 years, they lived in four different urban families where both parents had higher education.

For one month, we monitored whether the children showed research skills and how their geographical thinking developed. During observation, we examined the children's behaviour in their family environment, how their abilities progressed, the parents' attitudes toward them, the support from elders in developing their skills, and any problems encountered - both objective and subjective aspects. To achieve this, we maintained daily contact with the children's mothers to receive updates about their behaviour. Through weekly visits to each family, we also conducted direct observations of the children's activities.

Two of the children were only sons in their families, while four were siblings - two children each from two different families. In one of these families with two children, the sister was older and her brother one year younger. In the second family, the brother was older with younger sisters. In one household, grandparents were also present alongside the parents, while other children were raised solely by their mother and father. We considered how being an only child versus having older or younger siblings might affect development. We also noted the children's feeding patterns and how family members interacted with them.

*2.3 Fateh* is two-and-half years old. When his mother feeds him, she uses foods essential for his healthy growth, never giving him anything just because she likes it herself. Thanks to this balanced diet, the child is healthy and active. With his grandmother also at home, he is always supervised in shifts. Fateh has complete freedom in the apartment—he explores every corner, touches every object within reach, and examines how things work. His

toys are carefully chosen to develop his cognitive skills. Despite being only two and a half, he recognises and names all colours. He neatly arranges similar toys in a line, then checks from different angles to see if any are misaligned. No one taught him this—it's the product of his own reasoning. If a toy isn't standing straight, he adjusts it until it is. He insists his mother's name the colours of the toys or plastic containers he touches. If she accidentally gives the wrong answer, he protests and demands the correct one.

When it rains, his mother opens the window and says, 'Look, it's raining!' Fateh stretches his hand outside, fascinated as the raindrops fall on his palm. He stares at the sun, trying not to blink, mesmerised by its brightness. The first time he stepped outside in the snow, he cautiously and fearfully touched it with his hand. He marvelled at how everything was covered in white. His mother handed him some snow and said, 'This is snow—touch it, it's cold.' Fateh held it, realising it wasn't scary but made his hands chilly.

His mother dislikes pushing him in a stroller. Instead, she lets him roam freely in the yard, touch trees, bushes, and stones, and explore nature. He interacts with other children, deciding for himself whom and how to play with. However, she gently guides him with reminders like, 'Don't go near the road,' or 'That's not your ball—don't throw it at others.'

Fateh spins a small toy bucket on the floor, intently watching its motion. As it turns, he spins himself, mimicking its trajectory. When he throws coloured balls, he tracks each one, observing how far they roll. He presses the keys of a toy piano one by one, listening to the sounds, then repeats the process to hear them again. His keen observational skills are evident—he distinguishes between sounds, showing an early sensitivity to music.

*2.4 Elman* is five years old and the family's second child. He has an older sister, a mother, and a grandmother. His father, a highly educated man, often takes his son into nature. He endeavours not only to help his son recognise each element of the natural world but also to experience them as living beings. After the liberation from occupation, he began introducing Kalbajar — which his son had previously only seen in photographs — to him in real life. Despite living in the city, the boy moves freely among the mountains, rocks, and forests without needing anyone's hand, treating nature with a maturity beyond his years. During their excursions, his parents never criticised his behaviour; instead, they encouraged his complete freedom.

He smells the flowers without picking them, watches the insects' movements without touching any, showing respect for life in all forms. His way of standing on the banks of the Tartar River, washing himself, and observing the hot water bubbling and erupting like a geyser reveals a deep affection for nature's elements. When he stood atop a mountain and was told that the white blanket spread beneath him like cotton was a cloud, he did not hide his amazement: "If these are clouds, and they are below us, then why don't we see God in the sky?" he asked his father. No one expected such a question from a five-year-old, and it revealed the richness of his logical thinking and imagination.

From Elman's question emerged this reasoning: in his view, God is above the clouds. It is possible to see God beyond them. This implies that Elman often looked at the clouds and wondered about seeing God. Otherwise, when he saw the clouds below him on the mountaintop, he would not have asked why God was not visible. He even examined the clothes made for him, resembling a soldier's uniform, and asked his father a question unusual for his age: "The Azerbaijani soldier was not afraid, so why am I afraid?" His understanding of an Azerbaijani soldier exemplifies his logical thinking. It seems he holds a unique perspective on the courage shown by Azerbaijani soldiers in liberating their lands from occupation.

*2.5 Aygün* is five years old and the first child in the family. She has a younger brother. Both her parents are highly educated. Aygün is surrounded by love and is treated like an adult, enjoying freedom in her behaviour. Her grandmother, a geography teacher, has begun to shape Aygün's geographical thinking, even though she is still a minor. Despite not attending kindergarten, Aygün recognises letters and identifies mountains, plains, lakes, and seas on the map her grandmother uses, based on their colours. When the lands were liberated from occupation, Aygün would watch her grandmother mark the liberated cities on the topographic map of Garabagh hanging on the wall. She could also point out those cities with ease and pronounce their names. Her grandmother often takes her on excursions with university students, and this has helped Aygün develop a unique geographical world-view. She enjoys stargazing and observing city lights at night. During walks in the yard, she explains simple facts about nature to her younger brother, pointing out plants and insects and sharing what she has learned about them.

2.5.1 Rasul is the second child in the family and Aygün's younger brother. He is four years old. His sister's behaviour acts as a guide for him. Sometimes, it feels like he is merely imitating her. However, on closer observation, it becomes clear that he is developing his own unique character. Before touching a plant, he looks to his sister for her reaction, as if to gauge her opinion. He enjoys observing ants—following them and watching

how they carry pieces of dry grass. When he has questions, he asks his sister or mother. He peels back flower petals and examines their inner structure and colours, as though trying to identify a pattern. When he sees butterflies flying, he waves as if bidding them farewell. Before playing with soil or sand, he looks to his mother to see her response. If she does not object, he proceeds to play. These behaviours show that he is developing observational skills and learning to investigate and understand nature, gradually exploring his environment.

*2.6 Davud* is five years old and the eldest of three children. His sisters, Nilufer and Nargiz, are four and two years old, respectively. Both parents are highly educated. Although they live in the city, the parents take the children to parks and entertainment centres daily after work. They dedicate weekends to their children and regularly organise nature trips. They strive to raise healthy children with a broad world-view, encouraging communication with others. The children are consistently exposed to nature, regardless of season or weather. Natural phenomena are not used to scare them; instead, parents frame them positively: 'How beautiful the rain is,' 'The wind is warning us that rain is coming with its sound,' or 'It has snowed, and nature is wearing its white winter dress.' They take them to mountains, forests, rivers, springs, farms, museums, and more. The parents avoid using prohibitive words such as 'no' or 'don't' in early education. They understand that such prohibitions only draw children's attention to the forbidden. As Prophet Muhammad advised: Do not say 'no' or 'don't' to children. Instead, show them two paths and explain which one is right or wrong. Let them choose how to act! [Khatam al-Anbiya, 1993]

From these examples, it is evident that children begin acquiring geographical knowledge and skills within the family environment. Over time, this leads to the development of a geographical world-view and forms the basis for geographical culture. Geographic thinking is then expanded further in schools, universities, and the broader society. As a result, individuals with a strong geographical mindset emerge as citizens.

## 3. Conclusion

Regardless of profession, such individuals demonstrate geographical awareness in their work and personal lives.

*3.1* When engaged in urban planning, an engineer who is geographically mindful will consider local climate conditions and terrain features. This approach not only reduces environmental damage but also ensures that natural factors do not trigger future disasters in urban areas. This can help maintain the long-term health of cities. For instance, Baku lies on the Absheron Peninsula, bordered on three sides by the Caspian Sea. The area is known for its rich oil and gas reserves. Since Azerbaijan's independence, skyscraper construction in Baku has surged. However, this has negatively affected the city's amphitheatre-like appearance, which was once in harmony with the terrain. More critically, constructing skyscrapers over resource-rich ground increases the risk of future disasters in the event of an earthquake. These factors were largely overlooked.

*3.2* When exploiting natural resources, managers must consider environmental sustainability. Responsible extraction practices can aid nature’s recovery and protect it for future generations. In the Tuva Autonomous Republic—incorporated into the Soviet Union in 1944—unregulated gold mining led to anthropogenic changes that caused illnesses among the population. The Soviet authorities focused solely on extracting gold, ignoring the environmental and public health consequences.

*3.3* If entrepreneurs in the food industry had strong geographical awareness, they would avoid including harmful substances in their products for profit. Likewise, agricultural producers would consider the long-term health implications of excessive chemical fertiliser use aimed at accelerating plant growth.

*3.4* If world leaders had a well-developed geographical mindset, they would not attempt to destroy nature through warfare. They would understand that every missile or shell fired at another country releases toxic gases that, through atmospheric circulation, return like a boomerang to their own lands. For instance, had the Russian leadership possessed geographical awareness, they would not have launched environmentally devastating missile strikes on Ukraine. Air masses from the Atlantic pass through Europe, over Ukraine, and into Russia’s East European Plain, affecting the weather as far as the Ural Mountains. The toxic emissions from these attacks circulate back, contaminating Russian air, affecting cities like Moscow and key agricultural regions. A leader with geographical thinking would choose peace and cooperation with neighbours and the broader international community.

## 4. Findings

As a result of the study, it became evident that children's geographical thinking develops across various environments. The family setting plays a foundational role in the initial stages. At later stages, this thinking is further enriched through exposure to school, university, and wider society. Since this article focuses solely on the family environment, the following key findings were obtained:

- Geographical knowledge and skills are first acquired within the family, but their nature differs significantly between urban and rural settings.
- Unlike urban environments, children in rural areas acquire geographical knowledge and skills across multiple dimensions, with fewer limitations.
- Parents play an indispensable role in the early formation of children's geographical thinking.
- If every individual—regardless of their profession—possesses well-developed geographical thinking, it becomes possible to protect the Earth from global disasters and foster peace and harmony worldwide.

**Relevance of the article**

This topic remains highly relevant today, as it underscores the importance of proper child-rearing within the family and the development of geographically informed citizens.

**Scientific novelty of the article**

The article presents original observations confirming that the formation of geographical thinking begins in the family environment. For the first time, it also illustrates—with concrete examples—the consequences of geographical illiteracy among professionals in various fields.

**Practical significance of the article**

Readers of this article—whether in personal life or professional contexts—will be able to reflect and draw meaningful conclusions applicable to their own experiences.

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