



CHILDREN'S CURIOSITY TO PERCEIVE AND UNDERSTAND THE SURROUNDING WORLD

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Abstract: This article highlights children's natural curiosity toward perceiving the environment, that is, the surrounding reality. It also discusses the importance of this curiosity in the development of their intellectual growth, thinking, and imagination.

Keywords: children, reality, perception, curiosity, cognitive process, intellectual development, thinking, imagination, environment

Аннотация: В данной статье освещается естественный интерес детей к восприятию окружающей среды, то есть окружающей действительности. Также рассматривается значение этого интереса для развития их умственного развития, мышления и воображения.

Ключевые слова: дети, реальность, восприятие, интерес, познавательный процесс, умственное развитие, мышление, воображение, окружающая среда

Children's questions often require us to provide deeper and more thorough explanations. For example, we may need to think carefully about questions such as "Why is the sky blue?" or "Why do rabbits have large white tails?" Children want to be taken seriously and benefit greatly from clear explanations given in simple and understandable language [2].

However, when children ask hypothetical questions such as "What will happen if I leave my ice cream in the sun?" or "If it is raining, which coat is better for me to wear?", they are raising issues that can be explored through scientific inquiry. Research activities create learning situations for children that are both real and close to everyday life. Research serves to find solutions to a specific problem or an interesting observation. It is precisely this solution that deepens children's scientific understanding. A class of 7–8-year-old children observed ice spheres made of frozen water, drew their pictures, touched them, and listened to the sounds they made. They asked:

- "Why does it make a creaking sound?"
- "Why is its surface not uniform?"



- “Does it melt?”
- “Does a large ice sphere melt faster than many small pieces of ice?”
- “How much does it weigh?”
- “Why do my fingers stick to it?”

Aziza, one of the students, became interested in whether the ice sphere would float in water or not. She knew that ice cubes float in carbonated drinks, but she hypothesized that a large ice sphere might sink because it is heavy. One of her classmates recalled that icebergs float in water and suggested that this situation might be similar. The children discussed what they knew about icebergs and then tested their hypothesis by placing the ice sphere into a container filled with water. As a result, the ice sphere floated on the surface of the water [1].

This event encouraged Aziza to think even more deeply. When she placed the ice sphere into water, she noticed that the water level in the container rose. After that, she asked a new question that was interesting for everyone: “What will happen to the water level when the ice sphere melts?” Aziza’s curiosity and her need to find the answer motivated her to explore this problem throughout the day. During the day, as the ice sphere gradually melted, she regularly recorded the changes in the water level. As her observations continued, her curiosity and sense of wonder grew even more. At this point, further investigation was needed to answer her new questions. Aziza truly demonstrated a strong example of scientific curiosity.

Such research activities create broad opportunities for personalizing education. When children formulate their own questions, their interest in learning increases and their desire to understand develops. Although it is not always possible to find direct answers to every question through hands-on experiments, children become more actively engaged in seeking answers because the questions belong to them [4].

Research shows that practical activities and experiments do not always lead children to scientifically accepted explanations. However, the learning process through inquiry becomes much more effective when children are given the opportunity to discuss their observations. During interaction, children try to develop reasonable explanations for the phenomena they observe.

Sometimes, practical experiments and discussions alone are not enough to fully answer the question “Why does this happen?”. In such cases, solutions can be found through teacher-guided discussion, the use of available information sources, or even by consulting expert scientists.



The main goal of scientific activity is to produce reliable knowledge about how the world works. As physicist Richard Feynman noted, scientific knowledge arises from the interaction between experience and the imagination of the researcher. A fundamental principle of science is that all knowledge is tested through experience. Experiment is the ultimate judge of scientific truth. But where does knowledge come from? How do the laws that must be tested arise in the first place? Experience gives us various clues, but imagination is also necessary to turn these clues into general laws. These hypotheses are then tested again through experiment [3].

Thus, theories about how the world works can be tested through research. In this process, every scientist, including children, contributes with their own unique perspectives and ideas. Children's conclusions drawn from research are often based on their direct experiences. Some everyday conceptions are very firmly established. Others, however, may be quite uncertain, and if children carry out reliable investigations, they may be willing to change their views. The results of scientific inquiry should guide children toward more robust scientific understandings that are tested and confirmed through experimentation and practice.

References

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