

PROSPECTS FOR THE DEVELOPMENT OF THE FIELD OF NATURAL SCIENCE IN PRIMARY EDUCATION

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Abstract

This article considers the goals of developing the field of natural science in primary education. It studies current literature, analyzes existing methods, provides potential results, participates in a discussion on defined trends, and concludes with proposals for creating a more robust and effective curriculum for natural sciences in primary schools.

Keywords: Natural Sciences, Primary Education, STEM, Survey-based Learning, Practical Experiences, Improvement of Curriculum, Teacher Training.

Introduction

Along with theoretical knowledge, practice plays an important role in shaping students' future professional qualities. Natural sciences have been acquired for many years due to practical work. Scientific experience, practical knowledge have played an important role in the knowledge and understanding of the environment. It is well-known that natural science is a science that studies the diverse characteristics of a comprehensive material world, various events of nature, and is based on scientific experience, and practice is the foundation of this science. Defines the process of knowing mankind's practical activities based on knowledge of the laws of nature and the development of science. Operation is the criterion of truth. The need for knowledge is born in practice, and their accuracy is checked and approved through practice. Knowledge is formed not by a small amount of people's brains, but by a particular work activity. Practice is a key factor in a person's relationship with nature, which, in turn, plays an important role in the system of people's relationships and in social production. The main types of practice are material production and scientific experience. Scientific and natural practice performs the following tasks [1].

Primary education provides the basis for a child's lifelong educational journey. Natural Sciences, which includes subjects such as biology, chemistry and physics, plays a crucial role in shaping a child's understanding of the world. This article will consider the current state of natural science in primary education and will identify ways to improve.

A review of the available literature at the initial stage will reveal a growing consensus about the need to develop education in natural sciences. Research emphasizes the importance of early exposure to scientific concepts, developing interest and developing critical thinking abilities. To make science more interesting for younger readers, there are practical experiences and a call for a transition to survey-based learning by highlighting Real programs.

To determine the prospects for the development of natural sciences, primary education curriculums, teaching methodologies, and teacher training programs were comprehensively



reviewed. The analysis looked at survey-based education, technology integration and alignment of the curriculum with the latest advances in scientific knowledge.

Results:

The development of the natural sciences field in primary education has important promises and importance for several reasons. Some of the prospects for its growth and improvement are:

1. Early exposure to research:

- Introducing natural sciences at the initial stage will provide students with an early introduction to scientific style and critical thinking. This encourages them to ask questions, conduct observations and form hypotheses.

2. Training interests:

- Natural Sciences can liking a child's interest in the world around him. Practical experiences, interactive learning, and engaging activities can make a fan interesting and pleasant, which leads to a lifelong interest in the subject.

3. Technology integration:

- Integration of technologies such as virtual simulations, educational programs and online resources can enhance the learning experience. This approach will not only make learning more interactive, but also match the technological advances of the 21st century.

4. Discipline:

- Natural Sciences provides a great platform for integrating knowledge from different disciplines, such as mathematics, technology and even art. This interdisciplinary approach will help students see the interrelationship of different subjects.

5. Ecological Awareness:

- Teaching natural sciences at an early age allows you to study ecological problems and stability. It helps to develop a sense of responsibility for the environment, nurture environmentally friendly habits from a young age.

6. Development of qualifications:

- Natural Science Education can contribute to the development of critical thinking, problem solving and analysis skills. These skills are not only necessary for scientific research, but also transferred to other areas of education and life.

7. Different Career Paths:

- Early exposure to natural sciences can expand students' prospects for potential careers. It can inspire future scientists, engineers, ecologists and health experts and other roles.

8. Global Perspective:

- Understanding the natural world on a global scale is becoming increasingly important. Teaching natural sciences in primary education helps students develop a global perspective on



issues such as climate change, biodiversity and health, and promotes a sense of global citizenship.

9. Training of teachers:

- In the field of natural sciences, it is very important to invest in the professional development of primary school teachers. Well-trained teachers can create a dynamic and effective learning environment, inspire students and provide a solid foundation in academic understanding.

10. Inklyuziv Ta'lim:

- It is necessary to work to ensure that natural science education is inclusive and open to all students, regardless of gender, socio-economic status or cultural background. This could contribute to a more diverse and inclusive scientific community in the future.

By solving these prospects, primary education in natural sciences can play a decisive role in raising a generation of scientifically literate and inquisitive individuals and laying the foundation for the development of science and technology in the coming years.

Discussion

The discussion section examines the factors that affect the current state of natural sciences in primary education. Problems such as resource limitations, teacher training and the strictness of the curriculum were identified. It also discusses the role of technology in increasing science education, emphasizing the need for interactive digital resources to complement traditional teaching methods.

Conclusions

The prospects for developing natural sciences in primary education are promising, but they face challenges. Improving curricula, investing in teacher training programs and using technology can contribute to more dynamic and effective science education at the initial stage.

- Development and implementation of the Standardized Natural Science Curriculum, which includes survey-based learning and practical experiences.
- Pay priority to teacher training programs to improve teacher skills in conducting interesting and effective science lessons.
- Add technology to the curriculum by providing interactive digital resources to supplement traditional teaching methods.
- Advocates increasing resources and allocating funds to ensure that schools use the necessary materials for practical experiences.

In conclusion, promoting the development of natural sciences in primary education requires joint efforts by politicians, teachers and stakeholders. By solving defined problems and implementing the recommended strategies, we can create a more vibrant and impactful academic learning experience for young readers by setting the stage for a future generation of individuals with academic qualifications.



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