METHODOLOGY FOR RESEARCHING SCHOOL STUDENTS' INTEREST IN EXACT, NATURAL AND HUMANITARIAN SCIENCES AROUND THE WORLD

https://doi.org/10.5281/zenodo.14713967

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Abstract: *this article examines a number of issues that affect the study of interest in exact, natural and humanitarian sciences in secondary schools around the world and provides definitions of the main concepts of the topic. At the same time, it examines the main stages of exact, natural and humanitarian sciences in an educational institution and determines the interest of secondary school students in exact, natural and humanitarian sciences.*

Key words: *natural and scientific education, concrete, natural and humanitarian sciences, research activities, research competencies, globe.*

The process of studying the interest in exact, natural and humanities in secondary schools around the world is relevant. In this regard, we can see data on the study of natural science as a task of science education in many countries and the interest of schoolchildren in natural science. For example, in the Czech Republic, popularization of science is aimed at improving research and study of natural sciences. The results of the studies help to identify new and unconventional forms of popularization of natural sciences. They help to understand how students perceive natural sciences, as well as the basis for the formation of appropriate activities and programs in the field of education [7]. An attempt was made to determine the attitude of secondary school students towards natural sciences.

Our aim is to determine how students perceive natural sciences, to consider how the school and extracurricular environment influences their thinking, and to present the social reality of secondary school students who are currently making decisions about their studies. Our aim is to determine the extent to which they are aware of their situation, how they interpret natural sciences within the framework of social reality, and what factors influence their decisions to study natural sciences [8].

Nowadays, the importance of science education is being renewed in many schools, as this education plays an important role in successfully preparing students for modern technological progress and social life. The relationship between scientific knowledge and values is the basis of science education, therefore, attention is paid to the development of scientific attitudes in the educational process.

In the modern era, knowledge is growing rapidly, which makes it difficult to fully master each subject. Therefore, the approach of dividing natural sciences into separate sections in schools does not meet the requirements of the time, but there is a need to use an integrated educational model. This model helps students understand the interrelationships between disciplines and apply general knowledge in practice.

Natural sciences help students understand the interconnectedness of nature, society, and culture. They play an important role in solving global problems through quality education.[1] Natural sciences are based on research and experimental development and encompass a wide range of knowledge, from mathematics to physics, chemistry, and biology.

Research uses systematic investigation to gain new knowledge, and analysis is essential in this process. It helps students develop scientific thinking, problem-solving skills, and builds students' sense of responsibility for the environment. Science also prepares students to understand social issues and participate actively in society.

When teaching natural sciences in school classrooms, general competencies are formed in the following subjects [6]:

• observe, identify, understand and explain natural, socio-economic processes and phenomena (including the names of planets in the solar system, natural processes and phenomena, day and night, seasons), climate change, the nature of the Republic and its territories;

• be able to correctly use geographical objects and place names (in this case, students should know how to correctly pronounce and write the names of the places where they live, the names of regions and cities in Uzbekistan);

• practical use of globes, geographical atlases and maps (students should be able to show their homeland on a globe and map, the region where they live, the highest mountains, plains, rivers, etc. on a natural map of Uzbekistan);

• nature protection and ecological culture (in this case, the student must have competencies such as the nature of the habitat, natural resources, objects, their protection, and economical use). General competencies.

Improving the educational environment is important for students to develop a deeper understanding of natural sciences and a holistic view of the world and humanity [2]. The Strategy for the Further Development of the Republic of Uzbekistan sets the tasks of “Promoting research and innovation, creating effective mechanisms for implementing

scientific and innovative achievements in practice". This indicates the need to improve the methodology of teaching natural sciences based on a qualified approach.

The need to develop a general education general development program arose for several reasons [9], including:

• updating the content of natural science education as the most important part of general education personnel training;

• the need to form the natural science component of students' comprehensive worldview in modern conditions;

• the relevance of involving schoolchildren in research activities in order to maximize their creative potential and professional self-determination;

• ensuring that schoolchildren are advanced in understanding the nature of living organisms;

• the need to create a context in which program participants can test research results and apply the new knowledge gained to solve real problems;

• deepening the field of understanding of science and thereby developing interest in natural sciences;

The operation of this methodology is based on the following principles:

• to accept the position that students are able to master the basic content and concepts in the field of natural sciences;

• focus on basic scientific ideas and practices;

• mastering the main methods of research as a necessary component for lifelong learning, independent acquisition of new knowledge, formation and development of abilities;

• relying on the age characteristics, life experience and cognitive interests of schoolchildren.

The purpose of this research is to analyze the impact of science teaching on increasing students' cognitive abilities. The impact of scientific experiments, laboratory work, and research methods on the development of critical thinking, problem-oriented thinking, and analytical competence is considered. The role of the teacher and his influence on increasing students' interest in science are also important [3]. The article explores the importance of linking educational material with real-life examples and applying scientific knowledge in practical activities, which helps to develop students' creative thinking.

The exact sciences - creative and philosophical thinking are closely intertwined in the history of the development of our educational practice, sometimes we have developed specific activities to develop one or another form of thinking, but in many cases, it is difficult to see where one begins and the other ends [4], to make it easier to follow, we describe actions and approaches with separate goals.

- students' knowledge and appreciation of themselves and others as creators of knowledge;

- students' self-confidence and ability to challenge their own thinking.

Using a multifaceted concept, it is important to discuss various ways of modeling the relationship between a person and a broad object such as science with its various aspects, including its broad content and contexts, models that can be used to describe the content structure of interest in science and the process of interest development are presented. Based on a review of typical methods of assessing interests, instructive conclusions are drawn about students' interest in science, which play an important role in the current scientific debate, and finally, problems for future research on interest in science education are discussed.

Along with educational psychology and educational research, science education helps to understand how interest in science develops, expands, or fades, and reveals ways to promote it appropriately. In studying this process, theoretical models are presented that help to identify and empirically test the development of interest. From the perspective of science education, it is important to identify the conditions that influence the development of interest, and scientific discussions focus on research on interest in science and its findings.

Humanities - The benefits of the humanities are that they are increasingly relevant today and will play an important role in shaping society in the future. The humanities study the social and cultural achievements of humanity and help to study a wide range of historical and contemporary topics. Through this, students not only acquire a wide range of knowledge [10], but also develop many important skills. These include:

• critical thinking is a key skill that not only improves your problem-solving skills, but also helps you reassess the world around you;

• communication is an important skill in everyday life that helps you build and strengthen relationships. Effective communication at work, home, and with friends is key to success;

• ethical concepts are an important skill to understand and reflect on ethical dilemmas that arise in everyday life, in books, movies, and in the study of science.

Career Opportunities in the Humanities - Degrees in the humanities not only allow you to work in those fields, but also open up a wide variety of career opportunities. The soft skills required in every job, critical thinking, are developed through the humanities and these skills can help you succeed in a variety of fields.

Studying the humanities not only provides in-depth knowledge of the subject, but also widely develops skills such as critical thinking, communication, cultural awareness, moral understanding, and creativity [5]. Although the humanities may seem distant, they are important for diversifying their studies and helping science students to succeed as well.

By promoting interdisciplinary connections, teachers can help schools and classrooms better understand the sciences, natural sciences, and humanities. Working with colleagues on topics can strengthen these connections, and incorporating them into lessons can enrich the learning process.[11] By creating networks between schools, teachers can learn from each other and learn new methods. This approach can greatly benefit both teachers and students, and can help students develop a broader perspective.

The natural sciences and the humanities differ in key ways. The natural sciences study the natural world using empirical methods.[12] This process involves collecting and testing information through experiments and observations. The humanities, on the other hand, study human culture and history through fields such as literature, philosophy, and art, where textual analysis and interpretation of works of art play an important role. Thus, while the natural sciences are based on precise data and experimental reliability, the humanities are subject to subjective analysis of cultural expressions and a variety of interpretations. While humanitarian issues make serious moral claims, ethical, cultural, and spiritual considerations are challenged by logistical, economic, and geopolitical thinking, including processes such as violent conflict, famine, and natural disasters.

CONCLUSION

In conclusion, the article examines the interest of schoolchildren in the exact, natural and humanities sciences and shows the importance of humanities education in developing their sense of global responsibility. Humanities education helps students develop soft skills such as understanding social and cultural achievements, empathy and critical thinking. Exact sciences (for example, mathematics and physics) form creative thinking and provide an opportunity to study the natural world. Natural sciences, on the other hand, are important in solving global problems and serve to discover new knowledge through scientific and experimental research.

Integration between the sciences and humanities also enriches students' experiences and increases their active participation in the learning process. This approach represents an important step towards improving the quality of education and fostering a sense of global responsibility among students.

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