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THE ROLE OF LEARNING THROUGH EXPERIMENTS IN SOCIETY.

Davlatov Komil Yashin ugli,
Karshi State Technical University,
Student of the Department of Telecommunication Technologies

Annotation. *This article presents an analysis of the role of experimental learning in society, the importance of experiments in scientific, technological, social and medical fields. The widespread use of experiments in society and their importance in various fields are discussed, and experiments are used in scientific research to discover new knowledge and test existing theories.*

Key words: *Experiments, society, scientific, technological, social, medical field, new knowledge, theories, testing, medicine, social psychology, economics, new discoveries, innovation.*

Аннотация. *В статье представлен анализ роли экспериментального обучения в обществе, важность экспериментов в научных, технологических, социальных и медицинских областях. Обсуждается широкое использование экспериментов в обществе и их важность в различных областях, а также эксперименты используются в научных исследованиях для открытия новых знаний и проверки существующих теорий.*

Ключевые слова: *искусственный интеллект, технологическое развитие, центральные направления, общество, умственная деятельность человека, моделирование, сложные проблемы, социальные, экономические и этические перспективы.*

New discoveries and approaches in fields such as technology, medicine, social psychology, and economics are made through experiments. These processes help solve various problems in society, introduce new technologies, and develop

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innovations. Experiments also make it possible to improve social processes and understand human behavior.

Experiments serve as an important factor in expanding knowledge in society, developing new methods, and ensuring human progress. It helps to analyze how scientific and social progress is achieved through experiments in society.

Throughout human history, experiments based on science and experience have had a great impact on the development of society. Learning through experiments is one of the most important processes in understanding the world, creating new knowledge, and technological progress. This process directly affects the daily life of society not only in the fields of science, but also in economics, medicine, education, and many other areas.

Experiments are the foundation of scientific inquiry. Through them, scientists test new theories and confirm or refute existing ideas. Scientific theories can only be strengthened through theoretical verification, which is done through experiments. For example, discoveries that have brought about scientific revolutions, such as quantum mechanics or the theory of evolution, were advanced and confirmed through experiments.

Learning through experiments plays a very important role in society and is widely used in various fields. Experiments help to understand many issues not only in science, but also in everyday life, to create new technologies, and to solve social problems. Their role in society is based on the following aspects:

Scientific progress: Experiments are the main method of scientific research. They allow us to discover new knowledge and test existing theories. For example, experiments in biology, chemistry, and physics reveal natural laws and develop new medicines.

Technological innovations: Experiments can create new technologies. Experiments in fields such as artificial intelligence, robotics, and nanotechnology are creating new opportunities for society. New technologies play an important role in the modernization of the economy and production.

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Social experiments: Experiments are also used in the social sphere. For example, in social psychology, experiments are conducted to study human behavior and various social processes in society. This helps develop effective approaches to solving social problems, for example in the fields of education, justice, and health.

Medicine: In medicine, new treatments and drugs are tested through experiments. These experiments help identify new treatment methods and develop effective methods for doctors.

Learning through experimentation helps society develop, as scientific discoveries often lead to technological innovations. These innovations, in turn, advance the economy, medicine, energy, and other fields.

In medicine, learning through experiments has led to great advances in healthcare. New drugs, treatments, and medical technologies have only been developed through experimentation and scientific research. For example, experiments conducted to combat vaccination and viral diseases have helped improve health in society. Today, during the COVID-19 pandemic, experiments have played a key role in the development of new vaccines.

Understanding Error and Success: Errors made during experiments also provide very valuable knowledge. Each successful or unsuccessful result helps society to identify new directions.

Consensus Building: Experiments can be used to build consensus between different groups in society. For example, experiments conducted on political or economic issues help in making important decisions.

Education: Experiments are used not only in scientific fields, but also in education. Experiments help to teach students scientific methods and develop their critical thinking skills. Through this, the younger generation learns new knowledge-based approaches.

Experiments bring new knowledge, innovations, and improvements to society. Their role in society is growing, as technological and social changes are developing rapidly.

Experiments not only allow the creation of new treatments, but also allow us to combat risks. Such experiments provide knowledge essential for human health and help improve society's healthcare system.

In the education system, learning through experiments creates important opportunities for students and teachers. Scientific experiments, tests, and practical work allow students to apply theoretical knowledge in practice. This process is carried out not only in the sciences, but also in the fields of pedagogy and psychology. For example, the quality of education is improved by conducting experiments to test and develop new teaching methods.

In addition, pedagogical experiments identify the most effective teaching methods and help teachers further improve their work. This process has a significant impact on society, since education is the basis for the development of society.

In economics, too, experimentation helps us understand the economic system in society. Experiments in the areas of new economic theories, monetary policy, trade, and investment help ensure the economic stability of society. For example, by testing new economic models and strategies, governments optimize their economic policies.

Experiments are also important in the private sector for creating new products and services, attracting consumers, and developing markets. Through public surveys, marketing research, and user testing, companies develop new strategies and better understand consumers.

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