

## IN THE EDUCATIONAL FIELD OF PHYSICS LEVEL AND POSITION

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### *ANNOTATION*

*The development of education, which is one of the basic freedoms of every person, is extremely important for the development of the country. Consisting of major fields of science, science consists of evidence-based fields of science that make people's everyday lives easier. Physics is a branch of science that has a place in people's daily life. While the classical learning approach is not useful today, the 5E learning model is seen as a useful model because it involves the learner in the lesson. In this study, an attempt was made to consider the most important situation for physics education within the educational model.*

**Keywords:** *Physics, Education, 5E model*

### **Enter**

Advances in science govern almost all aspects of social life. In the field of science, the developments in physics are very important to achieve the level of modern civilization. the field of science dealing with, in addition to changes in the chemical

structure of matter; the natural structure of man and the appearance of man. The main goals of physics can be listed as follows:

- Revealing and explaining the order in the universe
- To reveal the conditions and rules for the occurrence of events and to target them

The importance of education and training in physics is increasing day by day; For this reason, research in this field has created the need to improve the quality of physics education.

### **The importance of physics education**

The contribution of science and technology based on it is huge. For this reason, the importance of science education is increasing. After the Second World War, there were many changes in science. Russia launched its first satellite into space in 1957, and as a result, other developed countries of the world were also affected and took action at that time. Countries that do not want to be left behind in the race of technology development aim to develop science in order to get ahead in this race.

For this purpose, many different and innovative science curricula were developed in a very short time based on projects developed by scientists. In general, the philosophy of these programs was to give new individuals the identity of a researcher. As a result, the necessary personnel were trained in the industry, which was the golden land of the time, and the country prospered. One of the main goals of science education was to make students scientifically literate. Scientific literacy gives a person the ability to know the essence of science, to know that information in science is based on verifiable evidence, to know how data is collected, to understand basic concepts and theories in science, to be able to distinguish between science.

It can be understood from here that physics affects every area of human life. That is why teaching physics is so important. General tasks of physics education

These goals

- Formation of students' scientific thinking skills,
- To give the student the opportunity to use his own mind,
- Being able to establish a connection between science and technology,

- To be able to understand the importance of the development of society through the means of science and technology,
- Acquire the ability to think both constructively and critically
- Be able to show the results of research, investigation, observation and experiment in words, writing and drawing;
- To be able to use the methods of observation, investigation, experiment and research in achieving scientific results and understanding laws,
- Interest in physics, observing new developments and understanding the importance of new developments.

### **5 E model**

This model is a new system that increases students' interest in research, meets their expectations, and includes skills aimed at acquiring knowledge and understanding through participation. This model involves the learner in all aspects of the activity and causes the learner to create their own understanding.

Thanks to the model, the student focuses on the topic, discovers information easily, categorizes the information received and can easily use it in life practice. Both a constructive approach and research based on psychology, personal experience, the values previously learned and believed by the student affect the process of assimilation of new information. The model consists of five stages. These stages are; These are engagement, learning, explanation, development and evaluation. Many scholars have adapted the 5E model to many studies. In their study, Wilder and Shuttleworth examined the effectiveness of a course taught using the 5E learning model and found that the 5E learning model motivates students and promotes conceptual success. Mainer adapted the study of the electromagnetic spectrum to the steps of the 5E model and watched her students' engagement increase. Orgill and Thomas reinforced each step of using the 5E learning model by providing examples from everyday life, especially in science classes. In addition, Carreno did something very different and

provided environmental education with the SE educational model. Newby tried to teach 2nd graders about the seasons with the 5E learning model and observed an increase in success rates at the end of the instruction.

### Summary

School is a very important factor for the development of a person. Science exists primarily to make life easier for nature and, therefore, for people. Physics is a field of science that people use all the time in their daily lives without even realizing it. Since the beginning of education in schools, the education system has been constantly changing. Keeping abreast of developments and technologies is essential for education. Because physics requires specific knowledge in terms of causality and evidence; It is especially important to monitor these changes. In older educational models, when the teacher explained and the student listened; After it was realized that this would not bring success in education, new models were sought. Thus, the model of constructivism appeared. Many scientists have developed this model. The 5E model is one of the most widely used models of constructivism. According to the analysis of the literature, it can be seen that the current education is in the form of classical education models. However, with an evolving and changing curriculum, the 5E model was seen in practice. When research was examined, the 5E model was found to facilitate student learning and increase achievement compared to the classic model. Therefore, it is very important to abandon classical models in education for the level of development and use models similar to 5E, which involve the student in the lesson.

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