

INTERACTIVE GAMES AND EXERCISES ON THE USE OF DIAGRAMS AND GRAPHS

Toshboyeva Saidakhon

Teacher at Fergana State University

Usmonova Sabohatkhon

Student at Fergana State University

Abstract:

This article describes measures aimed at the field of mathematics in Uzbekistan. It also reflects methods of explaining the topic of analyzing information based on diagrams and graphs and developing skills in primary school students. Information is provided on this topic on their role in the development of primary school students, improving their critical thinking, and logical analysis skills. In particular, several methods of interactive games and exercises on the use of diagrams and graphs, their effectiveness in use, and the relevance of teaching in primary school are discussed.

Keywords: Interactive games, diagrams, graphs, exercises, methods and techniques.

Introduction

Mathematics is one of the world-recognized sciences. It is not for nothing that our Uzbek people call "Mathematics the king of all sciences". Mathematics plays a key role in increasing human thinking, expanding worldview, and developing logical thinking. Our Uzbek scholars - "Ahmad al-Farghani, Muhammad al-Khwarizmi, Abu Rayhon Beruni" - made a great contribution to the world recognition of mathematics as a mathematical science. Today, one of the prestigious scholarships for talented young people, established by the President of the Republic of Uzbekistan Sh.M. Mirziyoyev in honor of the names of our scholars, is the international award named after "Muhammad al-Khwarizmi". Scientists who have proposed a solution to a specific problem in practice based on the results of their fundamental and applied scientific research in the field of mathematics are awarded

this scholarship. In addition, a scholarship named after Academician Tashmuhammad Aliyevich Sarimsakov has been introduced for students and researchers studying in the field of mathematics.

President Sh.M. Mirziyoyev emphasizes: “If we cannot destroy the old system in education, we cannot train modern personnel.” We will not be mistaken if we say that the results of reforms are in the example of higher education. As a clear example of this, we can proudly say that currently the contract of women studying for a master's degree is paid by the state, prestigious scholarships are being established for each field, and we are only required to study and research.

In the digital age of the 21st century, the use of technology in education has changed the way we teach and learn. One of the most successful forms of using technology in education is “interactive games and exercises”, in which “diagrams” and “graphs” help students better understand concepts and apply them in everyday practice. These visual tools are an excellent opportunity to develop various skills, including critical thinking, problem solving, and communication.

Diagrams and graphs are an effective way to present information in an understandable way. Using interactive games and exercises to develop their learning and analysis skills is one of the most useful and effective ways. Diagrams and graphs are often used to make complex information visually understandable.

They are widely used in the following areas;

- Mathematics and statistics - comparing numerical data
- Marketing and business - analyzing customer behavior
- Scientific research - describing the results of experiments
- Education and pedagogy - explaining information to students

Like the other side of the coin, learning and analyzing diagrams and graphs is not equally understandable and easy for everyone. Therefore, interactive games and exercises play an important role in this regard.

Let's look at the most effective interactive methods and techniques that help in studying graphs and diagrams:

1. The game “Describe the data”

Students are given random data (for example, indicating the students' favorite subjects, sports interests, the number of birds in the trees). Students must depict this data in the form of a diagram or graph. The most accurate and beautifully drawn diagrams are evaluated and encouraged.

2. The game “Find the wrong diagram”

Several diagrams or graphs are presented, one of which is drawn with an error. Students must find this incorrect diagram and explain the errors.

3. The exercise “Analyze the results of the survey”

Students are asked to conduct a small survey on a topic. (For example, “Which colored pencils do you use most often?”). Based on the results obtained, a diagram or graph is drawn under the guidance of the teacher. The results are analyzed with the help of the teacher and conclusions are drawn.

4. “Let’s Be Analysts” Game

Students are given ready-made graphs on an economic or social topic. (For example, population growth, inflation rate changes). They must answer questions based on these graphs (For example, “In which year did the population increase sharply?”).

Developing skills in working with diagrams and graphs increases students’ analytical thinking abilities. This process can be made interesting and effective through the above interactive exercises and games. They can be useful not only in the educational process, but also in various areas of life.

In conclusion, interactive games and exercises using diagrams and graphs are a powerful way to enhance learning and help students better understand complex concepts. They provide teachers with an excellent opportunity to develop various skills in students and actively involve them in the learning process. Using technology in this way can become a powerful tool for improving the quality of education and creating a richer and more effective learning experience.

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