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TEACHING THE SUBJECT "PROBABILITY THEORY" IN KSPI TAKING INTO ACCOUNT THE MODERN EDUCATIONAL CONDITIONS OF THE REPUBLIC OF UZBEKISTAN

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ABSTRACT
This article is devoted to some problems of teaching the theory of probability and mathematical statistics in a pedagogical institute.

Keywords: Basic methodical, integral theorem, Sequence of independents,

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We are primarily interested in the methodological aspect of teaching this subject.

It should be noted that the Uzbek mathematical school is known, including for its results in the theory of probability and mathematical statistics of Uzbekistan. The founder of the school was Sirazdinov Sagdy Khasanovich . At present, the successor of the ideas of the teacher is Farmanov Sh.K. and his students.

In connection with changes in the field of education of the Republic of Uzbekistan, the subject "Theory of Probability and Mathematical Statistics" was introduced into the secondary school curriculum: 10 hours in the 9th grade program, and 20 hours in the 11th grade program.

These innovations in the general education school required the training of specialist teachers of mathematics, and, consequently, changes in the program of pedagogical universities. The subject "Probability Theory and Mathematical Statistics" is studied at the 4th year of undergraduate pedagogical universities in Uzbekistan in the direction 5110100 - "Methods of teaching mathematics" and is one of the main subjects in this specialty. The program contains definitions of the basic concepts of probability theory: random events, random variables, special attention is paid to the introduction of the concepts of classical, geometric and statistical definitions of probability. The properties of probabilities, conditional probability and independence of events are considered. A sequence of independent events. Bernoulli scheme. Local and integral theorem of Moivre Laplace. Elements of mathematical statistics and its application, as well as the historical development of this subject and trends in its development.

The main methodological issue in teaching the subject of probability theory and mathematical statistics is how to introduce the concept of probability, axiomatically (according to Kolmogorov) or by accumulating experience in calculating the frequency characteristics of a random event that occurs in a series of tests. At the school of Sirazhidinov , a book was written, the author of which was a great specialist in this field Nagaev A.V. "Elements of Probability Theory and Mathematical Statistics". In it, the author recalls "it is well known that the correct application of mathematics is based on the

conscious use of mathematical models." To paraphrase the author of the book, the selection and selection of material for our experimental program is based on the frequency of using certain statistical procedures in pedagogical practice and the degree of knowledge of models within the framework of mathematical theory.

Issues related to the study of the concepts of a random variable, types of distributions are not so simple, especially when there is a shortage of students' life experience and study time. Therefore, in order to effectively teach the basics of probability theory, it is necessary to involve the available skills of students. To do this, the lessons should be carried out as often as possible experiments on measurement, carrying out any actions related to measurement, on computer experiments, otherwise, on the formation of skills for students in organizing data, databases, tables and processing results. Therefore, students of mathematics, future teachers within the walls of the pedagogical institute, need to learn how to independently carry out the above-mentioned events, where a random event appears and is classified in a natural way.

Purpose and task of studying the subject. The main purpose of studying this subject is that students of pedagogical universities should study the foundations of the subject and effectively apply the methodology for teaching students in secondary and special general education schools. Create conditions for the development of mathematical thinking, mastering the necessary style of probabilistic thinking, which forms mathematical knowledge and skills.

We find further development of the subject in the justification and concept of concepts and theorems related to random variables by their numerical characteristics such as: mathematical expectation, dispersion of random variables, the law of large numbers of their applications in practice. Also, to form the skills of experimental activity and evaluate it with the help of elements of mathematical statistics.

Modern information and pedagogical technologies. When studying the course, along with theoretical, practical and seminar classes, as well as independent work, it is important to use information and pedagogical technologies. Namely, in the process of teaching this course, new mathematical programs and electronic textbooks and websites, application packages are used: **Maple, Mathcad , Mathematika , Wolfram , Statistica** .

26 hours are allotted for the theoretical course of the subject. We conduct it in the form of a lecture-conversation. Where during the lesson both the teacher and the student participate. Information and communication technologies are also used during lectures. Ready-made electronic lessons.

30 hours are allotted for the practical session of this course. We conduct it in the form of solving problems related to the theoretical course. Examples are taken that are encountered in immediate life.

46 hours are allotted for an independent course. For independent work of students, a list of topics for this course of the subject is given. They prepare for these topics and the student chooses one topic from the list of topics that is of interest to him. Prepare for this topic. Works with textbook. Processes the experiment and reports its results to the students. Leading discussions with classmates. Answers questions given to him during the defense of his work .

The problem of teaching probabilistic thinking. First of all, it is connected with assessments of life and work situations.

In particular, the objectification of the teacher's self-esteem, the conduct of research work by students of a pedagogical university.

Briefly, these problems can be formulated as follows:

1. The problem is the formal knowledge of the concepts of probability theory and mathematical statistics.
2. Not the ability to present the situation that has developed in the learning process as a mathematical problem.
3. Transition from statistics to general concepts of probability theory.
4. Combination of pedagogical experiment with computer experiments, modeling of pedagogical activity.
5. The use of modern application packages and the R language in the practice of teaching the theory of probability and mathematical statistics.
6. Underestimation of the importance of probabilistic (mathematical) models in the management of the learning process.

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