



## **THE IMPORTANCE OF PEDAGOGICAL EXPERIMENTS IN TEACHING ECONOMETRICS TO STUDENTS OF HIGHER EDUCATIONAL INSTITUTIONS**

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<b>ABSTRACT</b>	<b>KEY WORDS</b>
<p>This article is devoted to the process of conducting a pedagogical experiment in teaching econometrics. In the article, the author also provided information on the types of pedagogical experiments, the results of the experiment, as well as the conclusions and proposals made on its basis.</p>	<p>Pedagogic experiment, econometrics, experiment, criterion Feshira, validation experiment, technology, methodical system, obrazovanie, pedagogic management.</p>

### **Introduction**

In the field of pedagogy, experimental-pedagogical work among students should make a special contribution to the development of econometrics. The theoretical function is carried out in the study and explanation of pedagogical activity, diagnostic level, experimental studies of pedagogical reality and transformational models-diagnostics in the construction of pedagogical theories and systems (prognostic level), diagnostics, diagnostics and previous pedagogical experience in the field of diagnostics (descriptive level).

Experimental and pedagogical work with students is carried out in stages. At its initial stage, active work begins on studying the state of teaching econometrics to students of the economics faculty of a higher educational institution: understanding and systematizing their observations; studying and analyzing methodological, psychological, pedagogical and other scientific literature (including curricula and programs) on the topic of research.

Based on the goals and objectives of experimental and pedagogical work, experimental and pedagogical work was carried out, which included a confirmatory, exploratory, and formative experiment. First, let's dwell on the confirmatory experiment.

The confirmatory experiment is carried out in certain periods. At this stage, active work is carried out to study the state of teaching econometrics to students of the Faculty of Economics of a higher educational institution with an economics major: understanding and systematizing their observations; studying and analyzing methodological, psychological-pedagogical and other scientific literature (including curricula and programs) on the topic of research.

The purpose of the confirmatory experiment is to determine the motivation for teaching econometrics to students of the economics faculty of a higher education institution, to substantiate the legitimacy and significance of the research, to identify obstacles to the organization of the process of effective teaching of econometrics to students, and to determine in advance the conditions necessary for the development, implementation, and operation of educational technology that implements the methodological system of teaching econometrics.

During the confirmatory experiment, research methods such as observation, interview, and survey were used. In this experiment, the experiment is carried out with the participation of students.

In order to encourage students to study econometrics, as well as to determine their future (possibly in industry-oriented classes) pedagogical activity, we will conduct a survey with the participation of students studying in the field of economics, in particular, students of the specialties "Economics", "Finance", "Accounting", "Mathematics", "Applied Mathematics in Economics". The surveys, that is, the experiment, will be conducted over several years. Students were invited to answer the question of whether they intend to work in statistics and econometric forecasting after graduating from a higher educational institution, and, if they answered no, they were asked to indicate the field of activity they would like to pursue. Thus, more than half of the students of the specialty "Mathematics", "Applied Mathematics in Economics" plan to connect their further professional activity with the sphere of economics and business, which, of course, implies a reasonableness and a conscious desire to learn how to use statistical methods in processing economic and social information. At the same time, it seems that a large percentage of students of this specialty want to continue their professional activity, perhaps as a teacher of classes in the economic direction. It should be noted that some students of the specialty "Mathematical Methods in Economics", which is mainly non-pedagogical, qualitatively point to the desired professional prospects of a teacher.

Students majoring in Mathematics were asked whether econometrics was necessary for their future careers. The students' responses are included as the results of an experiment.

Testing the hypothesis of small differences in the two samples ( $r^*$  — Fisher's exact test) was carried out. As a result, statistically insignificant differences in the indicators of the two samples were revealed, which allows us to generalize the results obtained.

Thus, students of the Faculty of Economics and Mathematics have insufficient training in probability theory and mathematical statistics, which inevitably leads to difficulties in studying econometrics. This situation was also taken into account when developing the methodological system.

In addition, at this stage, we analyzed textbooks on the econometrics course (S. A. Ayvazyan, S. A. Borodich, I. I. Yeliseeva, N. Sh. Kremer, Ya. R. Magnus, V. I. Suslov, etc.) and curricula of other higher educational institutions on econometrics, as well as on the specialty "Economics".

As a result of this analysis, we have determined the minimum required amount of Econometrics.

Based on the results of this stage, the following main conclusions were drawn:

- It is necessary to develop a methodological system for teaching econometrics that takes into account, on the one hand, the individual capabilities of students of higher pedagogical educational institutions and the limited number of hours allocated to studying the subject, and, on the other hand, the volume of educational materials and the requirements of the social order;

- To successfully manage students' activities, it is necessary to know the reasons for entering a higher education institution, the teacher's attitude towards his profession, and their interest in acquiring econometrics knowledge;

- It is necessary to monitor the dynamics of changes, and for this it is necessary to create a number of educational and control materials;
- It is necessary to have appropriate educational tools to ensure the learning process.

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