

Reform and Development of Applied Statistics Teaching in Contemporary Colleges and Universities

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Abstract: Statistics, as a compulsory basic course for all majors of Finance and economics in Colleges and universities, enables students to grasp the necessary statistical analysis methods and basic statistical index knowledge, so as to provide in-depth statistical analysis services. Whether it is the macro management of national economy, or the management and investment decisions of micro companies, enterprises and even individuals. Both rely more and more on quantitative analysis and statistical methods. The undergraduate statistics education in China's financial and economic universities should face up to and correctly solve these problems in order to achieve a healthy development across the century. This paper attempts to explore the teaching methods of statistical professional courses in the implementation process under the premise that the teaching training program is advanced, scientific and feasible. With a view to promoting the reform and innovation of the teaching methods of statistical professional courses. While adhering to the characteristics of statistical professionalism, the school should pay attention to the knowledge and ability of students in the school to have a wider applicability after entering the society, and become a multi-functional compound.

1. Introduction

Statistics, as a compulsory basic course for all majors of Finance and economics in Colleges and universities, enables students to grasp the necessary statistical analysis methods and basic statistical index knowledge, and serves for in-depth statistical analysis [1]. At present, the development of statistics in China has not yet been able to get out of the predicament of "industry statistics". There is still a considerable gap in the level of statistical development between China and developed countries. With the popularization and deepening of quantitative research methods in the field of social and economic research in China [2]. Whether it is the macro-management of the national economy, or the management and investment decisions of micro-company companies and even individuals. They are increasingly dependent on quantitative analysis and rely on statistical methods. The different majors of finance and economics have their own particularities, which requires that they should be reflected in the requirements of the teaching objectives of statistical courses in different professions [3]. In order to truly promote the reform of statistics teaching in finance and economics in colleges and universities in China, it must be reflected in the requirements of its teaching objectives. There is a need to re-recognize the role and status of statistics and to cater to the development of modern science and technology and economic globalization. Further deepen the reform of statistical education and strengthen the construction of the statistics department.

With the popularity and application of network technology, global data is set to turn around every two years. This means that the amount of data generated by humans in the last two years is equivalent to the total amount of data generated before [4]. Statistical courses in different majors should select the corresponding statistical textbooks that reflect the characteristics of this major. The impact of big data on statistics is growing and the demands on data talent are higher. The statistical education, which is responsible for data collection, analysis and mining, is also facing a severe battle [5]. The undergraduate statistics education in China's financial and economic universities should face up to and correctly solve these problems in order to achieve a healthy development across the century [6]. This paper attempts to discuss the teaching methods of statistical specialty course in the process of implementation on the premise that the teaching training program is advanced, scientific and feasible.

In order to promote the reform and innovation of teaching methods of statistics courses, improve the teaching quality of professional courses and the innovative ability of professional students.

2. Integration of Statistics with Other Disciplines

Statistical education is based on the application of statistical theory and statistics in related fields. Therefore, in order to analyze the challenges and changes in statistics education in the era of big data, we must first understand the definition of both big data and statistics. The authors and versions of the textbooks selected by different universities are different. However, the basic content system is similar, and the emphasis is basically the same [7]. With the progress and deepening of China's reform and opening up, the statistics majors of financial and economic colleges are also reforming and developing, and have made great progress. With the rapid development of modern science and technology, statistics originated from politics and economics has expanded its application field, and is no longer limited to the original subject field. To a large extent, the cultivation of statistical concepts comes from the intuitive sense of data, which is an important purpose of describing statistics. As a science, basic economic theory and various professional disciplines are rigorous and profound. It's impossible to really grasp words without working hard.

The ultimate goal of Statistics Teaching in finance and Economics Specialties is to enable students to truly master a set of scientific methods for collecting, collating and analyzing specific statistical data of corresponding specialties, and to use them correctly. Statistics is a discipline in nature. That is to say, how to search, collate and analyze the data in order to infer the essence of the object of study by data analysis, and even predict the future of the object of comprehensive science. At the level of undergraduate education and the total amount of class hours, the current main contradiction is not the increase in the amount of the course but the qualitative improvement. The focus should be on solving the problem of combining mathematical statistics with socio-economic reality. Since the development of statistics, it is precisely because of the integration with other disciplines that many marginal branches have been born. The birth of these disciplines is due to the successful application of the following theories and methodologies of modern statistics. Research-oriented teaching is becoming a new bright spot in modern teaching research by cultivating human ability to develop human personality.

3. Effective Ways to Improve the Teaching of Statistics

Research-based teaching is conducive to improving the innovation ability of students majoring in statistics. Wherever there is data, it is the application field of statistics, and it is the place where statistical talents display their talents. For the teaching of statistical professional courses that try to improve students' ability, research-based teaching adapts to this requirement and trend with its unique characteristics. We should not use the same scale to measure all students. We should establish a diversified evaluation system to conduct a comprehensive evaluation of students. As a statistical teacher who teaches financial professional statistics courses, not only must have a deep statistical knowledge, but also must have the relevant financial professional knowledge [8]. Only in this way can we combine the data processing, data analysis methods provided by statistics with the corresponding specialized data. As a student trained in Statistics Specialty in financial and economic universities, he will be mainly engaged in social and economic fields in the future. Therefore, it is the most basic requirement to master solid economic basic theory and to be familiar with various economic management expertise.

Statistics, as a methodological science dealing with analytical data, can be used in quantitative research in any discipline or profession. In our practical teaching of statistics, the introduction of this content is not enough. Even some statistics textbooks written for students majoring in finance and economics have no such content at all. It should be said that the main contents of mathematical statistics and some modern statistical methods have been basically set up in the course design of statistics major in finance and Economics Universities in China, and the class hours occupied are not small. In the future, different professional orientations of schools should continue to add new courses

and add new content according to the needs and development of statistical science. This will be a long-term dynamic process. The integration of statistics and other subject areas has expanded the living space for the development of statistics, and has clearly defined the direction for the training of statistical professionals. The statistical system must be innovative, the statistical work must be innovative, the statistical theories and methods must be innovated, and innovation depends on talent. The teaching process must not only impart knowledge, but also cultivate students' spirit of thinking and exploring. Develop students' ability to continuously learn self-improvement and apply what they have learned.

4. Conclusions

Judging from the current situation, not all of the graduates of statistics majors in finance and economics in China are on statistical jobs. In addition, some will change jobs after engaging in a statistical work. An introduction to the basic content. The introduction of the basic theory and methods of statistics should be concise and intuitive, and should highlight key points and clarify difficulties, and strive to make students understand and accept. Using real-life real-life cases and analyzing theory with reality can not only deepen students' understanding of basic principles, but also enable students to understand the specific application of theory and methods. In the past, it was not an overemphasis on the fact that students in colleges and universities should be specialized and specialized in graduation and should be professionally matched. It is no longer the correct orientation and training of talents under the conditions of market economy. The integration of statistics and other specialized disciplines will change the current situation of statistical discipline construction and create a new situation. The dialectical relationship between wide caliber and professional characteristics should be correctly dealt with in personnel training objectives, and both should be organically unified to give consideration to. The prosperity of statistical undertakings depends on the close combination of statistical theory and specific disciplines. While adhering to the characteristics of statistics specialty, we should pay attention to the wide applicability of students' knowledge and abilities in school after they enter the society and become a versatile and versatile compound talents.

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