

Exploring the Strategies and Methods of Three Comprehensive Education in Statistics Major Courses

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Abstract: In the curriculum of statistics, it is very important to explore the strategies and methods of three comprehensive education. Firstly, teachers should focus on cultivating students' public affairs awareness and theoretical literacy, guiding them to think about important issues such as the country, society, and life through organizing three comprehensive education courses, forums, and discussions. Secondly, teachers can adopt activities such as case analysis, role-playing, and group discussions to stimulate students' initiative and participation, improve their thinking ability and moral awareness. In addition, the selection of textbooks is also crucial. Textbooks that can integrate into the actual statistical profession and guide values should be selected, so that three comprehensive educations can be organically combined with professional knowledge. Overall, three comprehensive education needs to focus on integrating theory with practice, highlighting problem orientation, cultivating students' sense of social responsibility and innovation consciousness, and promoting their comprehensive development.

Keywords: Courses in Statistics; Three Comprehensive Education; Strategies and Methods; Higher Education

1. Introduction

Statistics is a highly mathematical discipline with a wide range of applications, involving multiple fields such as economics, finance, medicine, etc. With the arrival of the new era, the statistics major in universities is facing the challenge of transformation and upgrading. The combination of three comprehensive education with professional courses has been widely recognized and practiced [1] and is no

longer a traditional high-precision theory and skills education. Therefore, this article aims to explore the strategies and methods of three comprehensive education in statistics courses, provide reference and suggestions, and promote the comprehensive development of statistics students in universities.

2. The Significance of Three Comprehensive Education in Statistical Courses

2.1 Characteristics of Statistics Major Courses

Three comprehensive education is of great significance in statistical courses. Firstly, three comprehensive education helps to cultivate students' correct worldview, outlook on life, and values, guiding them to possess noble moral character and social responsibility [2]. This is crucial for statistical professionals who need to possess a fair, objective, and honest professional ethics to maintain the accuracy and credibility of data analysis. Secondly, three comprehensive education helps to cultivate students' innovative spirit and critical thinking ability [3]. Statistics requires continuous innovation to respond to changing social demands and technological developments. Through Three comprehensive education, students can better understand the social value of statistics and apply innovative thinking to solve practical problems. In addition, three comprehensive educations also help to cultivate students' leadership skills and teamwork spirit. Statistical work often requires teamwork, and students need to have effective communication and collaboration skills. Through Three comprehensive education, students can cultivate self-confidence, sense of responsibility, and coordination skills, thereby better adapting to the needs of teamwork. In summary, the significance of Three

comprehensive education in statistical courses lies in cultivating students' comprehensive development qualities and abilities, improving their professional level and sense of social responsibility, and making them become statistical professionals with noble moral character and innovative ability.

2.2 The Role of Three Comprehensive Education in Statistical Professional Courses

In statistical courses, three comprehensive education plays an important role. Firstly, three comprehensive education helps to cultivate students' correct values and outlook on life. Statistical work involves a large amount of data collection and analysis, and the generation and use of this data are related to the interests of society [4]. Three comprehensive educations can guide students to establish correct social ethics and professional ethics, enabling them to maintain an objective, fair, and honest attitude in the process of data analysis. Secondly, three comprehensive education helps to cultivate students' innovative spirit and critical thinking ability. Statistics, as a science, requires continuous innovation and exploration to meet the ever-changing social demands. Three comprehensive education guides students to possess the spirit of exploration, innovation, and daring to question, cultivating their ability to discover, analyze, and solve problems [5]. In addition, three comprehensive educations also help to cultivate students' leadership skills and teamwork spirit. In statistical work, students often need to have good communication skills, coordination skills, and teamwork skills. Three comprehensive educations can cultivate students' confidence, sense of responsibility, and sense of cooperation, enabling them to better collaborate in teams and unleash their personal leadership potential. In summary, the role of three comprehensive education in statistical courses is mainly reflected in cultivating students' correct values and social responsibility, enhancing their innovative and critical thinking abilities, as well as cultivating their leadership and teamwork spirit [6]. These all contribute to the comprehensive development of students, improving their professional level and comprehensive quality in the field of data analysis.

2.3 The Necessity of Constructing a Quality Education Oriented Curriculum System for Statistics Majors

Building a quality education-oriented curriculum system for statistics is an inevitable trend in the development of education today, and it is also necessary for the construction of statistics courses. Quality education focuses on developing students' comprehensive qualities and practical abilities, while also cultivating their moral character and sense of social responsibility. It has a wide range of applications in the field of statistics. Building a quality education-oriented curriculum system for statistics majors helps to cultivate students' comprehensive qualities and practical abilities [7]. Through diverse educational methods and teaching methods, help students develop their innovative, collaborative, and practical abilities, apply the knowledge learned in practical operations, and improve their comprehensive quality and professional level. Building a quality education-oriented curriculum system for statistics majors can cultivate students' moral character and sense of social responsibility. By guiding students to establish correct cultural, moral, and value systems, students can understand the moral character and social responsibility that statistical professionals should possess, deepen their understanding of professional ethics, and lay a solid foundation for future work. Finally, building a quality education-oriented curriculum system for statistics majors meets social needs and is conducive to cultivating composite talents that are more adaptable to social development. Statistics, as an interdisciplinary discipline, requires students to possess interdisciplinary knowledge and skills in order to better adapt to the ever-changing social needs and development [8]. In summary, it is necessary to construct a quality education oriented curriculum system for statistics majors, which helps to comprehensively improve students' comprehensive quality and practical ability, strengthen their moral character and sense of social responsibility, and cultivate statistical professionals who are more adaptable to the ever-changing social needs.

3. Exploring the Strategies of Three Comprehensive Education in Statistics

Major Courses

Traditional Three comprehensive education strategies have some limitations, such as a single related textbook and a one-way teaching method that teachers impart, which is difficult to stimulate students' interest and participation, and lacks interactivity and innovation. Therefore, the practical exploration of diversified three comprehensive education strategies is very necessary. The practical exploration of diversified three comprehensive education strategies needs to be carried out from multiple aspects. Firstly, in classroom teaching, activities such as case teaching, group discussions, and problem-solving can be introduced to stimulate students' thinking and participation, making three comprehensive educations more practical and cultivating their innovative thinking abilities. Secondly, in terms of student participation in management, students can be involved in college affairs through the establishment of student unions, the establishment of college publications, and other means. This can enhance students' initiative and sense of responsibility, cultivate leadership skills and teamwork spirit, and improve the effectiveness of three comprehensive education. Finally, in terms of integrating and interacting teaching resources, modern technological means can be utilized to offer three comprehensive education courses on online teaching platforms and social media platforms, providing diversified learning resources and interactive mechanisms. This can increase communication and interaction between students and teachers, as well as between students, and promote the development of three comprehensive education. In summary, the practical exploration of diversified three comprehensive education strategies is of great significance for three comprehensive educations in statistical professional courses. Through innovative classroom teaching methods, student participation in management, and integration of teaching resources, the effectiveness and attractiveness of three comprehensive education can be improved, cultivating correct values and outlooks on life for students, and promoting the comprehensive development of comprehensive qualities [9].

4. Exploration of Three Comprehensive Education Methods in the Courses of

Statistics Major

Case analysis method is an effective method of three comprehensive education. By analyzing real cases, students can explore moral and social values from practical problems, cultivate their judgment and decision-making abilities, and construct correct values in practical situations. Curriculum design method is another method of three comprehensive education. By integrating three comprehensive education elements into curriculum design, students can enhance their understanding and thinking ability on social issues while learning professional knowledge. Through practice and experimentation, students can cultivate their innovation and practical abilities. Meanwhile, research-based learning and cooperative learning methods can also effectively promote three comprehensive educations. By conducting research-based learning projects, students can actively participate in exploring and solving problems, and cultivate their critical thinking and leadership abilities. Collaborative learning can be achieved through group collaboration, allowing students to cultivate teamwork spirit and social skills through communication and cooperation, and cultivate correct values and moral concepts. Finally, the Innovation and Entrepreneurship Education Law can also play a positive role in three comprehensive educations. By introducing elements of innovation and entrepreneurship education, we aim to cultivate students' innovative thinking and entrepreneurial awareness, stimulate their creativity and innovation ability, and cultivate their sense of social responsibility. In summary, the exploration of three comprehensive education methods in statistical courses can adopt various strategies such as case analysis, curriculum design, research-based learning, cooperative learning, and innovation and entrepreneurship education. The comprehensive application of these methods can promote the development of students' thinking and the cultivation of comprehensive qualities, making three comprehensive education more practical and effective [10].

5. Exploration of the Integration of Three Comprehensive Education with Engineering Practice

Engineering practice is an important technical practice activity, which is the process of

cultivating students' practical ability, innovation ability, teamwork spirit, and realizing social needs through designing and implementing engineering projects. There is an inherent connection between three comprehensive education and engineering practice, which can be integrated and work together to achieve greater benefits. In the courses of statistics, the organic integration of engineering practice and three comprehensive educations can promote the comprehensive development of students' comprehensive quality. For example, students can deepen their understanding of social needs and development trends through engineering practice projects and combine three comprehensive education elements in the curriculum to cultivate correct values and a sense of social responsibility. At the same time, there is a mutual influence between engineering practice and three comprehensive educations. Engineering practice can help students establish correct values and outlook on life by paying attention to moral, ethical, and other issues during their practical process; And three comprehensive educations can also guide students to innovate and improve their practical abilities and literacy by providing them with correct values education. Therefore, statistics courses can cultivate students into composite talents with a sense of social responsibility by combining practical cases and problems, integrating Three comprehensive education with engineering practice, promoting the comprehensive improvement of students' beliefs and values and practical abilities, enhancing their innovation and teamwork abilities, and cultivating their ability to face future social competition.

6. Conclusions

The practical exploration of diversified three comprehensive education strategies and the application of interdisciplinary three comprehensive education methods in statistical professional courses can effectively enhance the effectiveness of three comprehensive education. Through innovative teaching methods, student participation in management, integration of teaching resources, and organic integration with engineering practice, students can improve their thinking development, moral quality, practical ability, and innovation and entrepreneurship awareness, promoting the

comprehensive development of their overall quality. Deeply explore the practical effects of diversified three comprehensive education strategies. Researchers can further examine the application of different three comprehensive education strategies in specific courses, compare the effects and influencing factors of different strategies, and provide theoretical and practical basis for optimizing three comprehensive education strategies. The future research direction should be carried out from multiple aspects, continuously exploring and optimizing three comprehensive education strategies and methods, further promoting the development of three comprehensive education in statistical professional courses, and making more in-depth research in interdisciplinary cooperation, engineering practice, etc., providing theoretical support and practical guidance for the practice and innovation of three comprehensive education.

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