

#### **Original Research Article**

### Analysis on the Current Situation and Optimization Strategy of Statistics Teaching in China

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Abstract: As one of the important teaching subjects, the development and implementation of statistics teaching is conducive to the further realization of the training and construction of China's statistical talents, and has an important role in promoting China's social development and economic prosperity. Based on this, people from all walks of life have recently paid more and more attention to the training of statistics talents, thus effectively promoting the development and implementation of statistics teaching reform in China. In this article, the development of statistics teaching in colleges and universities in China is deeply explored and analyzed. During this process, the main shortcomings in statistics teaching in China are explored in detail, and corresponding optimization strategies are formulated, aiming at further improving and optimizing the quality of statistics teaching.

Keywords: Statistics; Teaching Work; Development Status; Optimization Strategy

Driven by economic development in recent years, the amount of data and information involved in social engineering in China is relatively large. Based on this, in order to better realize the reasonable control of related social work, all sectors of society pay more attention to statistics, thus effectively optimizing statistics teaching in China. A lot of analysis has indicated that due to the influence of diversified factors, the current quality of statistics teaching in China is relatively weak, which is not conducive to the effective training of talents in statistical schools<sup>[1]</sup>. Therefore, in order to effectively deal with these problems, relevant educators should actively do a reasonable analysis and exploration of statistics teaching, so as to adjust the teaching methods according to the actual situation of students, and lay a solid foundation and guarantee for the improvement of students' learning quality.

### 1. The value of statistics teaching

From the perspective of development, with the continuous improvement and optimization of social and economic level, the amount of data and information involved in social engineering and daily work in China has gradually expanded. In view of this problem, through the rational introduction and application of statistical knowledge, relevant staff can further realize the reasonable statistics and effective control of engineering data information, thus laying a solid foundation and guarantee for the effective formulation and implementation of subsequent decision-making, which can promote China's social and economic development<sup>[2]</sup>. At the same time, a large number of data show that through the effective introduction of statistical knowledge, managers can further actively control the data, thus laying a solid foundation and guarantee for China's economic development.

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### 2. The main problems in statistics teaching

# 2.1 The traditional educational concept of teachers, and lack of attention to the teaching value of students

As the organizer of education, teachers' educational ideas often have an important impact on the direction of teaching work. At present, in statistics teaching in China, some teachers are greatly influenced by traditional educational ideas. Therefore, in the teaching work, they often lack reasonable attention to the teaching value of students, which leads to the teachers' failure to effectively carry out the interaction between teachers and students in the process of teaching link design. Due to this problem, students' classroom participation in the process of learning statistical knowledge is relatively low, which is not conducive to the rational mobilization and cultivation of students' thinking consciousness, and has a very negative impact on the improvement of students' mastery of statistical knowledge.

# **2.2** A single classroom teaching model which is not conducive to creating a good teaching atmosphere

From the perspective of classroom teaching mode, the current mode in the statistics teaching used by a large number of teachers is relatively simple, mainly traditional cramming teaching. Under this teaching mode, the interest of classroom teaching is often relatively weak, which is not conducive to the reasonable cultivation and mobilization of students' learning interests, and has a very negative impact on the cultivation of students' subjective initiative in knowledge learning. At the same time, students are passively accepting knowledge most of the time, making it difficult for them to utilize their own thinking to deeply analyze and explore relevant statistical knowledge, and hindering the improvement of students' mastery of statistical knowledge.

#### **2.3** The low level of teaching technology limiting students' understanding of knowledge

From the perspective of teaching technology, in the process of statistics teaching in China, the teaching mode and technical level currently used by some teachers are relatively low. In the specific teaching practice, the teaching mode used by teachers is mainly traditional blackboard teaching. Under this teaching mode, it is often difficult for students to effectively realize the intuitive and clear understanding of relevant knowledge, which is not conducive to the reasonable construction and improvement of students' statistical knowledge structure, thus causing extremely adverse effects on the optimization of students mastery of these knowledge<sup>[3]</sup>. At the same time, under the traditional teaching mode, the efficiency of teaching work is relatively low, making it difficult to effectively improve the quality of classroom teaching, and negatively effecting the development and optimization of students' understanding level of statistical knowledge.

### **2.4 Lack of teaching evaluation, hindering the reasonable improvement of teaching methods**

At present, in the process of statistics teaching in China, some teachers lack enough attention to teaching evaluation, causing the failure to effectively carry out the teaching evaluation in their daily teaching process. From the development point of view, the existence of this problem has a very negative impact on the reasonable adjustment and improvement of statistics teaching methods in China, which limits the effective improvement of students' knowledge understanding and mastery, and has a negative impact on the construction and improvement of statistics talents in China. On the other hand, due to the lack of teaching evaluation, it is difficult for most students to fully find out their own misunderstanding of knowledge, which is not conducive to the adjustment and reform of students' knowledge learning methods, and has a negative impact on the cultivation and mobilization of students' thinking ability.

### **3.** Main strategies to optimize the quality of statistics teaching

# **3.1 Properly changing educational concepts and giving full play to the teaching value of student groups**

From the perspective of teachers, in order to further improve the comprehensive quality of statistics teaching, teachers should actively introduce advanced teaching concepts in the teaching process, so as to correctly understand the value of students in the teaching process, effectively realize the rational play of students' teaching role and lay a solid foundation and guarantee for students understanding of statistics knowledge and further improvement and optimization of living standards<sup>[4]</sup>. At the same time, teachers can better guide students to conduct in-depth analysis and thinking on relevant statistical knowledge in the teaching process, which can promote the improvement of students' knowledge understanding level. For example, in the daily teaching process, through the design of questioning session, teachers can help students make in-depth analysis and exploration through some breakthrough points by using statistical knowledge. It can lay a solid foundation and guarantee for the improvement of students' application ability of statistical knowledge.

## **3.2** Promoting the exploration of teaching mode and promoting the diversified development of teaching work

In the process of classroom teaching, in order to further cultivate and mobilize students' interest in learning knowledge, teachers should actively study and analyze the relevant education and teaching modes, effectively apply them to the classroom teaching of statistics, thus further innovating and improving the classroom teaching mode, and laying a solid foundation for the improvement of students' knowledge mastery level<sup>[5]</sup>. The diversified development of teaching mode is conducive to meeting students' knowledge learning psychology, and has a good role in promoting the effective stimulation of students' knowledge learning interest. On this issue, a large number of practices show that teachers can better impart relevant knowledge through reasonable exploration of teaching mode, and guide students to realize effective understanding of relevant knowledge in the process of practical activities, which is of positive significance for promoting students' knowledge mastery level. For example, through the introduction of the group competition mode, teachers can help students to further realize the cultivation of knowledge learning and exploring subjective initiative, which is of good value for optimizing students' awareness of knowledge exploration.

#### **3.3 Introducing advanced teaching techniques to guide students to fully understand the relevant knowledge**

From the technical point of view, in order to better

help students realize intuitive and clear understanding of statistical knowledge, teachers should actively introduce and apply relevant teaching technologies in the teaching process, so as to better realize the presentation of abstract statistical knowledge and provide assistance for students to improve their knowledge understanding level. For example, in the process of teaching statistical knowledge, through the introduction of practical cases, teachers can create a good atmosphere for students to apply statistical knowledge, so as to guide students to realize a clear understanding of the application needs of statistical knowledge more intuitively<sup>[6]</sup>. In this process, through the application of multimedia teaching equipment, teachers can help students build statistical knowledge models of related cases. Based on this, the relevant models can be used to help students more intuitively realize the understanding and cognition of the corresponding statistical knowledge, which has a positive role in promoting students' ability to apply statistical knowledge.

#### **3.4 Actively carrying out teaching evaluation** to achieve targeted adjustment of teaching methods

In order to further promote the teaching level of statistics, teachers should actively pay attention to the teaching evaluation and make a clear assessment and rational understanding of the students' mastery level of statistical knowledge according to their relevant performances. It will help to guide students to further understand and effectively master statistical knowledge. Regarding this, the researchers pointed out that through the development and implementation of teaching evaluation, teachers can further realize the construction of teaching work system, which can accelerate the improvement of students' knowledge acquisition level<sup>[7]</sup>. On the other hand, from the students' point of view, through the implementation of relevant teaching evaluation links, students can effectively find out and correct their misunderstanding of knowledge, thus promoting students' knowledge mastery level.

### 4. Conclusion

From the perspective of development, with the continuous improvement and optimization of economic development level in recent years, the amount of data and information involved by all sectors of society has increased geometrically. In the face of this development trend, in order to better realize the development and implementation of relevant management work, the value of statistical work has been strengthened as never before. In order to further realize the reasonable training of statistics talents in China, educators should actively analyze and explore the current situation of teaching work<sup>[8]</sup>. In terms of specific practices, teachers should start from the perspectives of educational philosophy, teaching mode, teaching technology and teaching evaluation, and conduct in-depth exploration and analysis in combination with the problems existing in the current teaching work, so as to improve and perfect teaching strategies, thus laying a foundation for the promotion of students' mastery of statistical knowledge.

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