Innovation Research and Practice of Econometrics Classroom Teaching in Colleges and Universities under the Background of "Internet Plus" Education

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Abstract: With the rapid development of information technology and internet plus education becoming the mainstream, higher education is also facing new opportunities and challenges. Econometrics, as one of the important courses of economics, plays an important role in cultivating students' ability of data analysis and economic decision-making. However, there are some problems in the traditional classroom teaching mode of econometrics, such as low student participation and too theoretical teaching content. Therefore, it is necessary to improve the effect of classroom teaching of econometrics through innovation and practice.

Keywords: "Internet Plus"; Education; Background; Colleges and Universities; Econometrics

Introduction

This paper aims to explore how to innovate and practice the classroom teaching of econometrics in colleges and universities under the background of "internet plus" education. First of all, this paper will analyze the shortcomings of traditional teaching mode, and put forward innovative teaching methods and strategies in combination with the concept of "internet plus" education. Secondly, this paper will introduce how to use online teaching platform, interactive teaching tools and data analysis technology and other means of "internet plus" education, so as to improve the effect of classroom teaching of econometrics. At the same time, this paper will also focus on students' participation, learning effect and changes in teachers' roles, and put forward corresponding solutions.

1. The significance of using "internet plus" innovative teaching in econometrics classroom in colleges and universities

First of all, through the Internet, students can get a wider range of learning resources. They can obtain the latest research results, practical cases and academic resources through online platforms, academic journals and open courses, and enrich their knowledge reserves. Secondly, internet plus technology can provide various learning methods, such as online video courses, virtual laboratories and interactive learning tools. Students can choose their own learning style according to their own needs and learning styles, so as to improve the learning effect and meet individual needs. Thirdly, based on internet plus technology, online discussion platforms and social learning groups can be established to promote the interaction and cooperation between teachers and students. Students can communicate and discuss with teachers and classmates at any time, share ideas, answer questions, get feedback and inspiration from them, and increase the participation and depth of learning. Finally, with the help of "internet plus" technology, a platform for online use and training of actual data and software tools can be provided. Students can carry out practical activities of data analysis, modeling and solving practical problems, and enhance their practical ability and application ability in the field of econometrics.

2. The shortcomings of the traditional teaching mode of econometrics in colleges and universities

2.1 Theory divorced from practice

Under the traditional teaching mode, teachers often only pay attention to introducing the theoretical framework and methods of econometrics to students, while ignoring the combination of theoretical knowledge and actual situation. The lack of practical cases and application environment makes it difficult for students to understand the application mode and effect of theoretical knowledge in practical scenes. The core of econometrics is to analyze and model economic data by statistical and econometric methods. However, under the traditional teaching mode, students rarely have access to real economic data and corresponding software tools. The lack of practical data analysis and the applica-

tion of software tools makes students unable to really master the practical skills of econometrics.

2.2 Lack of interaction and participation

In the traditional teaching mode, teachers usually impart knowledge in one direction and students passively accept it. This teaching method limits the communication and interaction between teachers and students, and students rarely have the opportunity to ask questions, discuss and express their views. The lack of interaction between teachers and students makes students' learning enthusiasm and participation low. Due to the lack of interaction, students tend to have a passive attitude of digesting knowledge. They just attend classes and take notes, but they don't actively think and take the initiative to participate in the discussion. This passive learning method can not stimulate students' innovative thinking and problem-solving ability. In the traditional teaching mode, students learn more in the form of individuals. Lack of opportunities for teamwork and team projects, students can't communicate with others, share ideas and solve problems through collaboration. In this case, students' interaction and participation are limited.

3. Innovative teaching strategies of econometrics

3.1 Innovation in teaching methods

3.1.1 Online Course Resource Selection

Using internet plus technology, teachers can choose diversified online course resources. In addition to traditional textbooks and handouts, online video courses, virtual laboratories, online teaching platforms and other resources can be introduced to provide richer learning content and forms. With the help of open curriculum resources (such as massive open online course, open textbooks, etc.), students can obtain high-quality econometrics curriculum resources for free or at low cost. These resources are usually provided by well-known universities or professional institutions, and combined with the latest research results and practical cases. At the same time, the practice of econometrics is inseparable from the application of data analysis and related software tools. Teachers can choose data analysis tools and software suitable for online teaching, such as R language, Python, Stata, etc., and provide students with corresponding learning resources and practical environment so that they can conduct actual data analysis and model building. Online econometrics course can be combined with practical cases and projects to improve students' practical application ability and problem-solving ability. Teachers can design related practical tasks, so that students can use their knowledge to analyze real economic data or solve practical problems and provide corresponding support and guidance [2].

3.1.2 Innovation of offline teaching mode

Combining practical cases and scenes, combining theoretical knowledge with practice. Teachers can organize students to conduct field visits, business visits, industry research and other activities, so that students can experience and apply the theoretical methods of econometrics. Introduce project-driven learning, so that students can research and design solutions around practical problems or economic phenomena. Teachers can design courses or competitions, encourage students to do data analysis, modeling and prediction in groups or individuals, and cultivate students' cooperative ability and innovative thinking. With the convenience of today's science and technology, teachers can obtain real-time economic data and apply it to classroom teaching. By using real-time data for case analysis or model operation, students can better understand the application of econometrics in practical situations. With the help of interactive teaching technology, such as clicker and online voting system, students' enthusiasm and participation can be stimulated. Teachers can design interactive question-answering sessions, so that students can actively answer questions, share ideas, and discuss and deeply understand through real-time feedback. Invite academic experts and industry practitioners to give offline academic lectures or guest speeches. Such activities can expose students to the latest research trends and practical experience, and broaden their thinking and horizons.

3.2 Make full use of Internet resources to prepare for teaching.

Get the latest econometrics teaching resources through Internet search, academic forums, educational platforms and other channels. This includes textbooks, syllabus, teaching plans, handouts, teaching videos, etc., to ensure that the teaching content keeps pace with the latest development. Choose suitable online education platforms, such as massive open online course platform and learning management system,

and upload and manage teaching resources such as courseware, exercises and materials. In this way, students can access and download the required materials at any time, which is convenient for review and further study [3]. Make use of multimedia resources on the network, such as charts, pictures, presentations, experimental videos, etc., to enrich the teaching content and form. This can provide intuitive and vivid teaching materials and help students better understand and apply the concepts and methods of econometrics. Collect relevant examples and cases on the Internet to enrich the teaching content. These examples and cases can involve real economic data and practical application scenarios, helping students to link theoretical knowledge with practice. Use online tools and software provided on the Internet, such as statistical analysis software and data visualization tools, to demonstrate and practice data analysis and model building. Through the operation and practice of online platform, students can deepen their understanding and application of econometric methods. By participating in relevant academic social media and academic networks, such as academic forums, blogs and WeChat official account, you can learn about the latest research results, academic discussions and sharing of teaching experience. This will help teachers get more teaching resources and inspiration and improve teaching quality.

Conclusion

Under the background of "internet plus" education, the innovative research and practice of classroom teaching of econometrics in colleges and universities is an important step towards the future. By making full use of Internet technology and resources, we can provide richer and diversified learning contents and ways, stimulate students' interest and initiative in learning, and cultivate their practical ability and innovative thinking. The goal of this research and practice is to explore how to apply the "internet plus" model in the econometrics classroom in colleges and universities, so as to improve the shortcomings of the traditional teaching model. With the help of online platform, open course resources and multimedia technology, this paper provides students with more extensive learning resources and opportunities. By introducing interactive discussion, group cooperation, practical case analysis and data analysis, students can be encouraged to actively participate and explore, and theoretical knowledge can be closely combined with practice.

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