



Practice and Dilemma of Scientific Research Feedback Teaching in Finance Programs Research

—Take a University in Guangdong Province as an Example

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Abstract. Teaching mode reform has always been an important link in undergraduate course construction, and scientific research feedback teaching is an important way of teaching reform. Currently, there is limited research and few examples of integrating scientific research feedback into finance majors. This paper discusses the reform strategy of financial professional scientific research feedback teaching from three aspects of Basic+Vision, Flexible+Efficiency, Practical+Practice, and takes the course of econometrics as an example. The positive outcomes of integrating scientific research into education are demonstrated through three main aspects advancing the cultivation of innovative talents, enhancing students' innovation capabilities, and raising teachers' proficiency in scientific research.

Keywords: Scientific Research Feedback Teaching; Finance Programs; Teaching reform

1 Introductory

In 2019, the Ministry of Education released the Implementation Opinions on Developing First-rate Undergraduate Courses, highlighting the importance of teaching content that mirrors current trends and incorporates the latest advancements in academic research and scientific and technological fields into the curriculum in a timely manner. Scientific research feedback teaching has also emerged as a crucial method for educational reform.

Zhengyu Tao and Nan Li's^[1] research offers an empirical analysis of how scientific research influences teaching, establishing its positive impact on enhancing teaching quality based on both theoretical underpinnings and practical outcomes. The study by Junhong Su et al^[2] focuses on the application of scientific research in the cultivation of postgraduate students' innovation ability and emphasizes the importance of combining scientific research and teaching. In the context of application-oriented undergraduate

colleges, Qiang Li et al^[3] explore the practical impact of scientific research integration into the teaching approach. The study highlights the benefits of this approach in enhancing students' practical skills.

In terms of specific implementation strategies, Zhuling Chen et al^[4] proposed the strategy of using competitions as a means to promote scientific research results to feed undergraduate laboratory teaching. Liangxi Ding and Li Cao^[5] put forward the feasibility exploration and optimization suggestions of research feeding teaching for applied universities. Ronghui Li and Qinna Fan^[6-7] explored the implementation path of building a research-feeding teaching model based on the Super Star Learning Channel platform.

In terms of interdisciplinary application and innovation, Jiesong Zhang^[8] carried out a case design of research feedback teaching for the course of "Statistics", which illustrated how the research results can be applied to the teaching of the course. In the context of the construction of new liberal arts, Xufan Zhang and Jianing Zhang^[9] discussed the innovative undergraduate talent cultivation mode, emphasizing the importance of interdisciplinary background and innovation ability.

In conclusion, previous literature highlights the significance of scientific research feedback teaching in the education of financial professionals, offering extensive evidence and strategies from both theoretical and practical perspectives. These studies demonstrate that integrating scientific research feedback teaching can enhance teaching quality, nurture students' practical skills and innovative mindset, and produce top-tier talents for the financial industry. This paper will further discuss how to optimize the teaching mode of scientific research feedback teaching on the existing basis, integrate the advantages of scientific research with teaching, introduce scientific research into the classroom, and take the econometrics course as an example to explain the specific application and effect.

2 Scientific research feedback teaching practice in Finance Programs of a University in Guangdong Province

This paper sorts out the situation of integrating the scientific research achievements of financial teachers into talent training, and the main difficulties are as follows:

First, scientific research feedback teaching is only a sporadic exploration of individual teachers, and has not formed a complete concept and practice. If have guide students to participate in the national city competition experience teachers in the "statistics" the market survey analysis training and other courses teaching, combined with the past lead experience on the topic selection requirements, report structure, analysis method to explain the course content and key, but this pattern fragmentation, no sustainable replaceable path, difficult to promote. Some teachers advocate for students to engage in social research as part of their own research endeavors. The research topics can be transformed into college students' research projects or social practice projects, and students can also choose the graduation thesis. However, due to the lack of incentive mechanism, teachers' enthusiasm is not high, and the number of students involved is not much.

Second, the investment in teaching and research is insufficient, and the transformation degree and effect of teaching and research results in teaching need to be strengthened. Some teachers will integrate the classroom discussion with students, and update the teaching cases in time. For example, introducing the illegal operation of Foresea Life Insurance in the compliance operation of insurance companies; using the data cases of listed companies collected in corporate finance courses, but the cases are rough and not carefully polished. In the past three years, the number of teachers who have presided over school-level and above teaching research projects, excellent teaching cases and published teaching and research papers accounts for less than 20% of the total number of teachers in the school, and the national teaching achievements and teaching and research projects are even more blank.

Thirdly, there is insufficient development and construction of social resources in terms of breadth and depth. Although the university has established school-enterprise cooperation with many units, the cooperation is still relatively narrow, and the regular cooperation system has not been fully established. In addition, the alumni contact needs to be strengthened, the cooperation based on the alumni platform is not deep, and the social resources, internship opportunities and social funds are insufficient. Therefore, although the school has invited professors and scholars to give lectures on cutting-edge knowledge of economic disciplines, hoping to guide potential students to pay attention to the cutting-edge development of disciplines, due to the lack of internship opportunities, not many students can carry out in-depth communication with teachers, and the effect is not ideal.

Based on this, it is necessary to study the talent training mode under the guidance of scientific research feedback teaching for finance undergraduates. The aim is to enhance the integration of scientific research accomplishments into teaching, involve students in research projects, enhance teachers' involvement in students' research projects, social practice, and graduation thesis topics^[10], ensure that research activities inform teaching practices, and to transform teaching methods to cultivate innovative professionals and enhance the quality of talent training.

3 The Strategy for Enhancing Finance Major Teaching

Econometrics is a second-year undergraduate course in finance. The course utilizes mathematical and statistical techniques to analyze economic phenomena and challenges. Its core is in building and testing economic models and predicting future economic activities.

3.1 Integration of Traditional Textbooks with Innovative Scientific Research Findings

Integrating the cutting-edge scientific research knowledge into the curriculum can make up for the lack of the traditional course content and strengthen students' cognition of academic research. While it is essential to acknowledge the significance of traditional

financial professional classic textbooks, it is also crucial to introduce cutting-edge advancements to expand one's perspective.

In the selection of scientific research achievements, first, to pay attention to the frontier, that is, to select the world's leading or domestic leading scientific research achievements; second, the relevance should be related to the knowledge learned and moderately expanded; third, the richness of presentation forms, such as journal papers, conference reports, academic lectures, etc. After the introduction of scientific research results, teachers need to adjust the previous teaching ideas. The instructional framework should be thoughtfully planned prior to the class. Due to the limitation of class hours, after the introduction of cutting-edge scientific research results, the teaching time of basic knowledge may be squeezed, which makes students cannot fully absorb the basic knowledge, and it is difficult to accept cutting-edge paper teaching due to insufficient knowledge reserve and the incomplete formation of theoretical framework. This requires teachers to prepare well before class, especially to strengthen the connection of each chapter, fully present the theoretical development context, and realize the efficient teaching of knowledge. In the teaching, pay attention to whether the difficulty and depth of introducing results can be accepted by students, and flexibly adjust.

Taking the course of econometrics as an example, the teacher introduced the economic model related to econometrics' papers published in domestic core journals in 2021 and 2023 based on the classic textbooks of econometrics, and introduced to the students how to use regression models and economic theories to study social and market issues. The course designs a complete theoretical framework, and part of the content of the paper has also become the expansion of theoretical knowledge. For each section, the teacher will ask students to ask questions freely, and find and solve problems timely.

3.2 Combination of Online Teaching and Offline Teaching

The effective connection between online teaching and offline teaching can make up for the lack of flexibility of traditional teaching, which is particularly important for scientific research feedback teaching. The introduction of online teaching can expand the width of the classroom, provide more advanced resources, and facilitate teachers to obtain students' learning data. Traditional offline teaching is conducive to directly obtaining students' feedback on the teaching content and efficient communication.

During the teaching process, teachers have the option to utilize intelligent teaching tools. To start with, please focus on the preview before the class begins. The prepared teaching resources will be sent to students before class, so that they can understand the formation background and general content of academic achievements, the research field of the scholar, etc. For students who have less contact with academic research, they can effectively improve the classroom efficiency. Secondly, pay attention to the expansion of the data and the richness of the form. Online teaching transcends the constraints of time and space, offering the potential to greatly broaden students' horizons. Teachers can upload videos, academic papers, PPT and so on for students to study independently. Finally, we should pay attention to the timely solution of problems, urge students to complete online learning, according to online learning data, give targeted questions and guidance in offline teaching, and adjust the teaching progress in time.

Taking the course of econometrics as an example, teachers use learning tools, upload PPT, reference books and scientific research papers to be explained before class, collect students' questions online, answer them uniformly offline, and encourage students to ask questions boldly. After class, the exercises will be assigned, and the teacher will also share the key problems found in the exercises online in the form of video or audio.

3.3 Pay Attention to the Combination of Current Affairs and Scientific Research Practice

Paying attention to national conditions and current affairs and carrying out scientific research practice make up for the deficiencies of finance students in practice and cognition of the actual situation in China. Students can clearly understand the importance of professional knowledge, which is conducive to promoting independent learning.

Initially, teachers must focus on developing students' scientific research mindset, encompassing aspects like the formulation of inquiry by scholars, methodologies for derivation, rationale behind method selection, data collection strategies, interpretation of results, and formulation of conclusions. This is beneficial for students to identify issues and engage in independent exploration. Secondly, assist students in conducting scientific research practice incrementally. Provide students with opportunities to contact scientific research, guide students step by step, and provide help at appropriate nodes. Compared with the conventional question answer, more attention to guide thinking and direction, there are letting go and guidance. Moreover, pay attention to the introduction of current affairs, cultivate students' habit of paying attention to current affairs and seeking problems from the phenomenon. Additionally, students are urged to engage in diverse academic activities to expand their perspectives and horizons. Finally, in terms of course assessment, the routine assessment method of finance majors is mostly written test, which can consider paper writing to encourage students to independently apply what they have learned, select excellent papers or topics, and guide students to conduct more in-depth research.

Using the econometrics course as a case study, the instructor presented two papers to demonstrate the structure of academic writing and research concepts to students, and then led them in summarizing the core logic behind constructing research papers. Students are encouraged to pay attention to current affairs, share hot words combined with the teaching content, and ask students to "talk about a recent hot event in the society or market and analyze which variables can be selected" in class, and guide students to initially explore the problem with clear thinking and refined language.

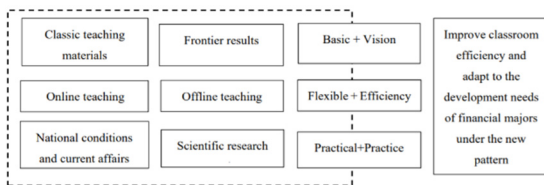


Fig. 1. Improvement strategies for course teaching in finance majors where research feedback teaching

4 The Effectiveness of Talent Cultivation in the Mechanism of Scientific Research Feeding Teaching and Educational Training

4.1 Scientific Research Feedback Teaching to Promote Innovative Talents

Initially, by way of the skilled construction talent development mechanism, Revamping the undergraduate theory and practice teaching process with the integration of scientific research accomplishments in curriculum development. realize the collaborative education of scientific research and teaching, teachers' scientific research and teaching of dual responsibility, Achieve personalized student growth by offering diverse courses and integrating ideological and political theory education, thus fostering the harmonious integration of scientific research and teaching. The innovative talent training mode in colleges and universities is characterized by high standards in professional and curriculum development. level scientific research support and lead the high quality personnel cultivation of a kind of positive practice and exploration.

4.2 Students' Innovation Ability has been Significantly Improved

In recent years, hundreds of undergraduate students have participated in the national, Guangdong, Dongguan and university levels, which has comprehensively improved their hands-on practice and innovation ability. Among them, participate in challenge Cup, Internet +, National College Students market survey and analysis competition and won dozens of awards, the participation rate, winning rate increased year by year; through the completion of innovative projects or participating in scientific research projects, there are many undergraduates as the first author or participate in the publication of academic papers. As a result, many students possess a strong theoretical foundation, formidable practical innovation skills, and excellent overall quality. After graduation, some students choose flexible employment or participate in national and local project employment, and the quality of undergraduate graduates has been recognized and highly evaluated by the society.

4.3 The Level of Scientific Research Among Teachers has been Greatly Enhanced

Scientific research feedback teaching puts forward the requirements for teachers' scientific research level, but also promotes the improvement of their scientific research level. Teachers can enhance their scientific research skills while incorporating scientific research into their teaching. In recent years, financial professionals have actively engaged in or authored over 10 academic papers in SCI and Chinese core journals. They have also sought funding for nearly 10 provincial, municipal, and university-level scientific research projects and teaching initiatives. This has significantly enhanced the research and teaching capabilities in the financial field. Alternatively, certain teachers have established their teams of undergraduate academics. In the team, teachers, as the

guide and founder, excellent scientific research skills and keen sense of scientific research smell are the source of team cohesion. Engaging in communication and discussion with students can also enhance their scientific research skills.

5 Conclusion

This paper chooses the Finance Programs of a university in Guangdong Province as a case study to examine the reform and innovative practices in scientific research, along with the primary challenges encountered during this process. In the future, there will be a greater push to facilitate the translation of scientific research accomplishments into teaching, foster student engagement in research projects, enhance the integration of teachers' and students' research endeavors in social practices and graduation thesis topics, and boost the effectiveness of research-driven teaching approaches. These efforts aim to refine the innovation model for training professional talents, elevate the standard of talent cultivation, and extend successful practices to similar universities to amplify their impact.

Acknowledgement

Funded Project: 2022 Dongguan City University Teaching Reform Project (Key Project): Research on Innovative Talent Cultivation Mode for Finance Majors Based on Research Feedback Teaching Orientation. (Project No. 2022yjjg005)

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