A Study on Junior Teachers' Research Ability Promotion Path in Private Higher Vocational Colleges

Yu Xiao*
Polus International College, Chengdu, Sichuan, China
**Corresponding Author*

Abstract: As the most active and creative force in schools, the teachers' research ability directly influences the quality of talent cultivation and even the overall development of higher vocational education. Taking teachers from P College as the research subjects, this study investigates the current situation of teachers in private higher vocational colleges, identifies the problems and reasons behind their research capabilities, and summarizes strategies for enhancing the research abilities of teachers. The aim is to improve the research capabilities of teachers in private higher vocational colleges and promote their professional development.

Keywords: Private Vocational College; Research Situation; Research Ability

1. Introduction

In 2014, the State Council issued the "Decision on Accelerating the Development of Modern Vocational Education", which proposed to "strengthen the construction of vocational education research and teaching teams, improve scientific research capabilities and teaching research levels"[1]. Teachers are the first element of school development [2], and their scientific research level directly affects the quality of talent cultivation and even the development of vocational education. Nowadays, the innovation and reform of higher vocational education are constantly accelerating. It has become an urgent problem for higher vocational colleges to leverage the subjective initiative of teachers in scientific research, improve their scientific research ability [3], and promote the inclusive development of private vocational colleges through the improvement of their scientific research ability.

2. Analysis of the Current Situation of Scientific Research among Teachers in Private Vocational Colleges

This study uses P College as the research carrier to sort out and analyze the current research status of professional and technical personnel engaged in teaching and research at P College in the past 5 years based on dimensions such as teacher research projects and papers.

2.1 Basic Information

Table 1. Basic Information of Teachers

Investigation content		Male	Female	Total
Education	Postgraduate	43	159	202
	Undergraduate course	89	161	250
	Beneath the undergraduate course	18	22	40
Technical title	Professor	9	7	16
	Associate professor	20	36	56
	lecturer	59	157	216
	Assistant	50	129	179
	Not have	12	13	25

Note: Data as of January 1, 2023

According to Table 1, the total number of teachers engaged in teaching and research (hereinafter referred to as teachers) is 492 (excluding work and security personnel), including 150 male teachers and 342 female teachers. In terms of professional titles, there are 16 professors, 56 professors, 216 lecturers, and 179 teaching assistants. Due to some newly hired teachers or some teachers not meeting the evaluation requirements due to various conditions (education or other necessary conditions not being met), a total of 25 teachers currently do not have professional titles, including 12 male teachers and 13 female teachers. At present, the proportion of teachers with various professional titles in the entire school is 14.6% for senior professional titles (including 3.3% for professors and 11.38% for associate professors), 43.9% for lecturers, and 36.4% for teaching assistants. 5.1% have not obtained professional titles.

2.2 Basic Information of Scientific Research Achievements

Table 2. Status of Teacher Research Projects in the Last Five Years

Research topic level	Number	Number of Hosted Projects	Number
National level	0	5 or more items	5
Provincial and ministerial level	12	4 items	10
Department and bureau level	144	3 items	24
District level	26	2 items	51
School level	226	1 items	148
Total	408	0 items	254

As shown in Table 2, the number of topics led by teachers is relatively small and the level is relatively low. Between January 2018 and January 2023, a total of 408 projects were established, including 226 school level projects, 26 urban level projects, 144 department level projects, 12 provincial and ministerial level projects, and 0 national level projects. From the perspective of project level, the number of projects approved by teachers at or above the provincial or ministerial level is relatively small, with 12 at the provincial or ministerial level and 0 at the national level. It is difficult to obtain high-level projects. In addition to school level projects, the approved projects are mainly some provincial or municipal level projects and mostly self funded projects. Among them, 252 projects below the urban level account for about 62% of the total number of projects approved.

Table 3. Publication of Teacher's Papers in the Last Five Years

Number of published papers	Number of people
5 or more papers	28
4 papers	12
3 papers	19
2 papers	26
1 paper	77
0 paper	330

Note: The data is sourced from the annual statistics of scientific research achievements filled in by teachers themselves

According to Table 3, teachers have published a total of 491 articles in the past five years, including 31 core articles and 460 regular publications. There are 28 teachers who have published 5 or more papers, 12 teachers who have published 4 papers, 19 teachers who have published 3 papers, 27 teachers who have published 2 papers, and 77 teachers who have published 1 paper. Based on 492 teachers, there are still 330 teachers who have not published papers, accounting for approximately 67% of the total number.

Through the analysis of the current research status of teachers in P College, it can be seen that there is still great room for improvement in both quantity and quality of the research projects and achievements undertaken by teachers. In recent years, although the application for various projects at all levels and research achievements have been

increasing year by year, and the level of scientific research has gradually improved, overall, the overall quality of scientific research for teachers in private vocational colleges still needs to be improved. High quality and high-level scientific research achievements and approved scientific research funds are still relatively small, making it difficult for scientific research work in vocational colleges to deepen.

3. Analysis of the Problems in Scientific Research of Teachers in Private Vocational Colleges

The fundamental driving force for the development of schools lies in the professional development of teachers, which is the core driving force for the sustainable and healthy development of schools in the future [4]. In universities, scientific research is a necessary path for the growth and development of teachers, but surveys have found that private vocational teachers still have many problems in the process of scientific research.

3.1 Low Scientific Research Awareness and Impure Research Motivation

Insufficient understanding and emphasis on scientific research. Some vocational colleges only emphasize "industry learning" in their "industry learning research", and their research positioning, research direction, research role, and existing problems are very vague, to the extent that many teachers do not attach importance to scientific research after joining, believing that only teaching and talent cultivation can be done well. At the same time, some teachers conduct scientific research for the purpose of promoting their professional titles and fulfilling their job responsibilities. There are very few teachers who improve their teaching level or summarize their experience and theoretical level to conduct scientific research. In addition, under the influence of life and work pressure, teachers' research activities often have a strong utilitarian color.

3.2 Insufficient Scientific Research Experience and Need to Improve Research Capabilities

On the one hand, due to lack of experience, many teachers are unable to balance the relationship between teaching and research after entering the workforce. Especially for young teachers who have just entered the workforce, it is very difficult for them to summarize their experience and improve their theory in the short term when their teaching experience is not yet rich. On the other hand, the overall level of scientific research is not high, and the research atmosphere is not strong. Some teachers are unable to determine their research direction in actual scientific research work, coupled with a lack of summary and analysis of previous achievements, as well as their own accumulation of achievements, which makes it difficult to combine professional theoretical knowledge with scientific research and subject construction. In addition, the expansion of enrollment in vocational colleges in recent years has led to a serious shortage of teacher-student ratio in schools. The heavy teaching and life pressures have prevented many teachers from taking time out to engage in scientific research and related training.

3.3 Insufficient Scientific Research Investment

Private vocational colleges generally have insufficient total educational funds and limited sources of educational economy, most of which come from student tuition fees, private investment, and bank loans. In addition, there is a lack of government investment and policies, insufficient investment momentum from enterprises, and weak school management capabilities, which have brought many adverse effects on the development of private vocational colleges. In addition, a large amount of funds from private vocational colleges are used for campus infrastructure construction, Therefore, research funding is generally insufficient [5]. Due to insufficient research funding, it is often difficult for teachers to have opportunities for training and further education, and it is difficult for teachers to enhance their research capabilities through academic exchanges and training.

4. Path Analysis on Improving the Scientific Research Ability of Young Teachers in Private Vocational Colleges.

The improvement of scientific research ability is not achievable in a short period of time, and the improvement of teachers' scientific research ability is also influenced by various factors such as teachers themselves and

schools. On the one hand, teachers need to learn and actively participate in various training and research activities both on and off campus. On the other hand, schools should also take various measures to create conditions for teachers to improve their research capabilities [6].

4.1 Actively Participate in Academic Research

The research ability of teachers is an important factor in measuring their professional level, and the improvement of their research ability plays a crucial role in the professional growth of teachers. In terms of ideology, young teachers need to change their mindset, fully recognize the importance of scientific research, and recognize that scientific research is an important internal driving force for teachers to improve themselves. This can then mobilize teachers' enthusiasm, initiative, and consciousness in scientific research, making more teachers willing to continuously improve their scientific research abilities through self-learning, training, further education, and discussions, achieving the balance between teaching and research, and using scientific research to serve teaching.

4.2 Receive Professional Training and Study

Paul Langeland in his book "Introduction to Lifelong Education". He explicitly proposed the idea of lifelong education, stating that "the process of education and training does not end with the end of school learning. It should be a continuous process that runs through the entire process of life, that is, the entire life and various stages of human development [7]. At present, the most prominent problem for teachers in private vocational colleges is the insufficient educational level of the teaching staff and the low level of scientific research. In order to reverse this dilemma, the most crucial thing is to improve the education, degree level, and scientific research level of teachers. In general, the higher the educational level, the higher the training in scientific research is generally higher than that of teachers with lower educational levels. In addition, many high-level scientific research projects or projects have educational and professional requirements for the project leaders when applying. Teachers with higher education or professional titles have more advantages than teachers with lower education or professional titles when applying for projects or projects.

Therefore, teachers in private vocational colleges must establish a lifelong learning concept. One is to seize various opportunities for training, further education, and educational advancement, continuously improving one's own education or expanding one's professional perspective. The second is to continuously strengthen communication and cooperation between schools, enterprises, and public institutions, actively participate in various academic activities, seminars, and enterprise cooperation and exchanges at all levels, continuously learn from experts in various industries, understand industry trends and cutting-edge industries, gradually expand the knowledge system, and lay a solid foundation for the improvement of scientific research capabilities; Thirdly, if teachers still face certain difficulties in applying for high-level scientific research projects or projects, they can accumulate experience in applying for low-level projects to lay the foundation for subsequent application for high-level projects, or participate in high-level projects and obtain help and guidance from project team members through participating in research projects.

4.3 Creating a Good Academic Atmosphere and Establishing a Research Exchange Platform

In order to reverse the situation of weak scientific research awareness and low scientific research level among teachers in private vocational colleges, it is necessary for the colleges to create a good academic atmosphere. Firstly, each leadership team should attach importance to scientific research, take the lead in conducting scientific research, or attach importance to the cultivation of research backbone, play the role of "old leading new", "passing on help and guidance", and "promoting progress with new", implement one-on-one, one-on-one, and many-to-many guidance, improve teachers' scientific research ability, focus on the construction of teachers' team scientific research quality, and continuously promote the high-quality development of teachers' scientific research level. Secondly, integrate resources, establish interdisciplinary and interdisciplinary research teams, and strengthen the construction of research team

echelons to cultivate more teachers to be competent in scientific research work. Thirdly, hire external experts to share scientific research experience and academic exchange, to promote the improvement of teachers' scientific research capabilities. Fourthly, strengthen cooperation between schools and enterprises, provide teachers with learning and training opportunities for enterprises through social practice and service activities, guide teachers to identify and solve problems in practice, avoid disconnection between scientific research and practice, and ensure that their scientific research activities not only meet the needs of vocational colleges to enhance innovative capabilities, but also meet the needs of vocational colleges to serve local industrial development.

4.4 Deepening Institutional Design to Stimulate Teachers' Scientific Research Vitality

Firstly, improve the research incentive system and assessment evaluation system to stimulate teachers' research enthusiasm. The establishment of incentive mechanisms is the driving force for teachers to increase their research interest and enhance their research capabilities [8]. Based on the needs of teachers at different stages and levels, as well as the actual development of the school, a scientific, reasonable and highly operational research incentive system and evaluation system will be developed, and rewards will be given to scientific research achievements that meet the specified requirements.

Secondly, appropriate research pressure should be given to teachers. Yerkes and Dodson believe that there is an inverted U-shaped relationship between pressure and efficiency. The lower the pressure, the lower the work efficiency. When the pressure reaches a moderate height, the highest work efficiency is achieved. When the pressure is too high, beyond our ability to withstand it, the higher the pressure, the lower the work efficiency [9]. Therefore, each secondary college and relevant management department should formulate assessment and evaluation standards for young teachers according to the characteristics of teachers and the development needs of each college, and link scientific research indicators with salary, professional title, promotion, recognition, etc. according to local conditions. By participating in scientific research projects and publishing academic papers, teachers can improve their academic level and visibility, so as to better contribute to the school and society. In addition, through the improvement of scientific research ability, teachers can better grasp the latest educational technology and teaching methods, and improve their teaching level.

5. Conclusion

To sum up, teachers can improve their scientific research ability by actively participating in academic research, accepting professional training and learning, and building research exchange platforms and incentive mechanisms in schools. These strategies are not isolated, but mutually supportive and mutually reinforcing. Through systematic promotion, it can effectively improve the scientific research ability of teachers and promote the development of the overall scientific research level of the school. Current research may focus more on factors within schools and ignore links to the external environment. In fact, the improvement of teachers' scientific research ability is not only affected by the internal factors of the school, but also by the policy environment, social culture, market demand and other factors. Future studies can explore more about how to combine the internal factors of schools with the external environment to develop more comprehensive strategies for improving teachers' scientific research ability.

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