

Research on the Development Strategy of Teaching and Academic Abilities of Young Postsecondary Teachers Based on PAC Analysis

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Abstract: This article introduces the theoretical foundation and constituent elements of the PAC model, explains its application value in the field of education, analyzes the current situation and influencing factors of young postsecondary teachers in teaching and academic research, and proposes specific development strategies, including methods to improve teaching and academic research abilities. This article helps to gain a deeper understanding of the professional development needs of young teachers and provides theoretical and practical references for the professional growth of postsecondary teachers.

Keywords: young postsecondary teachers, PAC analysis, teaching ability, academic research, development strategies

Introduction

Against the backdrop of rapid development in higher education, the educational and academic research abilities of young postsecondary teachers directly affect the quality of education and academic innovation. With the deepening of higher education reform, higher requirements have been put forward for the comprehensive quality and professional ability of young teachers. As the two core forces of teacher career development, their educational and academic research abilities have become the focus of attention for education managers and policy makers. Young teachers face many challenges in the early stages of their careers, such as selecting teaching methods, updating teaching contents, and publishing academic papers. The degree of resolution to these challenges is often directly related to the speed and quality of young teacher's career development. The growth and improvement of abilities of young postsecondary teachers are also greatly influenced by the academic environment and educational policies. It is particularly important to make use of PAC analysis model that can analyze individual behavior and psychological state to study and propose development strategies for the educational and academic abilities of young postsecondary teachers. In education and academic research, PAC model can provide a new perspective to understand and guide the behavior patterns of young teachers, and help young postsecondary teachers manage their career development paths more effectively.

1. Introduction to PAC analysis model

1.1 Theoretical basis

The Personal Attitude Construct (PAC) analysis method, abbreviated as PAC analysis, is a unique and innovative psychological research method carefully developed by Japanese psychologist Tetsuo Naito. The core idea of PAC analysis is to cleverly trigger free associations among respondents through stimulating short texts, thereby deeply and meticulously

analyzing the complicated and multi-level attitude structures of individuals. The PAC analysis method utilizes cluster analysis, a rigorous and scientific statistical method, to thoroughly and meticulously process the large amount of free association data generated by respondents during the association process, and ultimately draw a tree diagram that reflects the deep attitude structure of the respondents^[1]. This special method not only reveals explicit attitudes that are clearly manifested, but also further uncovers important subconscious attitudes hidden deep in consciousness, providing a new perspective for understanding individual psychological state.

1.2 Composition elements

The components of PAC analysis method include four main parts: stimulus materials, free association, cluster analysis, and tree graph drawing. Firstly, researchers design specific and carefully selected short texts or keywords as special stimulus materials to stimulate respondents to generate associative reactions. These reactions are a series of relaxed and spontaneous free associations that they naturally make after reading these provided materials, which reflect their true and profound inner feelings and attitudes. Next, researchers will utilize complex and detailed cluster analysis methods to meticulously process and scientifically classify these rich, diverse, and interesting free association data, in order to identify the underlying or apparent consistency and differences. The final step is to accurately draw a large tree chart based on the detailed analysis results of the previous stage, which can intuitively present the attitude structure and psychological contour of the respondents. By comprehensively explaining these detailed and complex tree charts, researchers can gain a deeper understanding of the interviewees' inner psychological state and attitude tendencies, and obtain valuable research insights from them.

1.3 Application value

The theoretical framework of PAC analysis in the field of education demonstrates profound and prominent practical importance, particularly in enhancing the teaching skills and research abilities of new postsecondary teachers. The PAC analysis method can assist leaders responsible for teaching supervision tasks to gain a deeper understanding of the psychological state of teachers and students, and design more targeted and customized training and assistance plans^[2]. By thoroughly and meticulously exploring the behavior and mindset of teachers, the elements that are crucial to their career progress can be revealed, and then targeted and effective corrective strategies and auxiliary tools can be proposed to help teachers more effectively meet the challenges of education and research. Furthermore, the PAC analysis method can also be applied to thoroughly examine students' learning emotions and motivation, thereby assisting educators in designing educational strategies that are more suitable for students' needs and have more significant effects, enhancing the comprehensiveness of teaching outcomes. Under these strategies, school leaders can obtain comprehensive and in-depth data on the psychological state of teachers and students, which provides a solid theoretical basis and support for promoting teaching reform and constructing corresponding regulations.

2. Current situation of young postsecondary teachers

2.1 Academic status of teaching

Young postsecondary teachers, as the driving force of the education industry, have a direct impact on the quality of education and academic level through their teaching and academic abilities. Young postsecondary teachers have certain advantages in teaching, such as high sensitivity to new knowledge and technologies, and the ability to quickly apply modern information technology to the teaching process, enhancing the interactivity and vividness of teaching. Many young teachers still have deficiencies in their teaching experience and mastery of teaching methods. Young postsecondary teachers often lack systematic teaching training and guidance, leading to a need to improve their teaching design and classroom management abilities. Some teachers may appear inadequate in dealing with the learning needs and individual differences of different students, resulting in less than ideal teaching outcomes.

In terms of academic research, young teachers who actively participate in scientific research projects and publish academic papers usually possess high academic enthusiasm and innovative spirit. There are some certain limitations for

young postsecondary teachers in the depth and breadth of academic research, due to a lack of research experience and mastery of research methods. The acquisition and utilization of scientific research resources have also become a major challenge for young postsecondary teachers, especially in highly competitive research environments where they often feel immense pressure and their research output is affected. The improvement of academic vision and research level of young teachers is also limited by insufficient opportunities for academic exchange and cooperation.

2.2 Influencing factors

The factors that affect the development of teaching and academic abilities of young postsecondary teachers include external environment and internal factors. In terms of external environment, educational policies directly affect the focus of teachers' work. School support is reflected in teaching and training, research funding, and academic exchange opportunities. Changes in the social environment, such as technological progress and changes in industrial demand, can also affect the teaching content and research direction of teachers. Internal factors include the educational background, academic level, and teaching ability of teachers, and solid professional knowledge and research ability can help achieve results. The career development motivation and needs of teachers, such as teaching effectiveness and personal achievement, can affect their investment and performance. Psychological state and job satisfaction are also important factors. High pressure environments and heavy tasks can easily lead to job burnout, affecting work efficiency and innovation ability^[3]. By optimizing the external environment and improving internal quality, young teachers can better adapt to the needs of educational reform and academic development.

3. Development strategy recommendations

3.1 Improvement of teaching ability

In the process of enhancing the teaching skills of young postsecondary teachers, PAC analysis can effectively assist teachers in revealing their implicit emotions and spiritual tendencies in educational activities through two strategies: stimulus short stories and casual imagination. Universities should build a comprehensive and thoughtful training program, cleverly applying these strategies to capture the sincere views and positions of teachers in classroom educational practice. By utilizing cluster evaluation and constructing branching graphs, related education personnel are able to receive extremely detailed and targeted evaluations, thereby recognizing potential biases and shortcomings in their educational practices. The preciousness of these suggestions lies in their ability to actually assist teachers in optimizing their teaching skills, enhancing classroom management skills, and ultimately significantly improving overall teaching effectiveness.

3.2 Improvement of academic research capabilities

The PAC analysis method also plays an important positive role in enhancing academic research skills in this specific field. Universities can stimulate and guide young lecturers to expand their thinking freely, thereby uncovering the diverse emotions and psychological barriers they hold in the academic research process. Through group evaluation and the construction of a genealogy, teachers are able to gain a thorough understanding of the sources of tension and pressure encountered in research activities, as well as how these elements affect their academic achievements. Given these in-depth evaluation reports, educational institutions have the ability to tailor exclusive, thoughtful, and efficient academic research assistance programs for each faculty member, aiming to assist them in overcoming diverse mental distress, enhancing overall research productivity and innovative abilities^[4]. Promoting interdisciplinary collaboration and academic dialogue is undoubtedly a key means to enhance research capabilities. Universities should actively make interdisciplinary collaboration plans and involve authoritative figures from different research fields. Then it can not only broaden the academic field's perspective for young teachers, but also encourage interaction and cooperation with experts in other professional fields, enabling them to master new research approaches and skills, thereby significantly improving the quality of scientific research.

4. Conclusion

This article analyzes the situation faced by young postsecondary teachers in the fields of educational teaching and scientific exploration, as well as the elements that affect these situations, and proposes several clear growth plans. The utilization of PAC analysis aims to assist teachers in adjusting their teaching strategies and improving teacher management efficiency. In terms of improving the research skills of young teachers, tailored research assistance and interdisciplinary collaborative work are aimed at enhancing their scientific research productivity and innovation. By utilizing a system based on PAC evaluation and feedback process, the school is able to build a continuously self-optimizing and self-enhancing academic architecture, comprehensively enhancing the professional competence and comprehensive strength of young teachers from various perspectives, and promoting the stable and sustainable growth of educational quality.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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