

Effective Administration Model of Professional Development of Young Teachers in Ethnic Colleges and Universities in Southwest China

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Abstract

Promoting the development of the teaching profession has become an important issue that has been widely discussed and urgently needs to be solved in the academic field. This study investigates the effective administration model for promoting the professional development of young teachers in ethnic colleges and universities in Southwest China. Based on a review of the relevant literature, the study proposes a conceptual model that identifies three factors influencing young teachers' professional development: individual teacher factors, school environment factors, and social environment factors. The study aims to explore the factors affect the professional development of young teachers, to provide practical guidance for enhancing the professional development of young teachers in ethnic colleges and universities in Southwest China. This study designed and developed a questionnaire on the professional development status of young teachers in ethnic universities in Southwest China and conducted the questionnaire survey and analysed using structural equation modelling. The model identifies three key categories of factors that influence young teachers' professional development: individual teacher factors, school environment factors, and social environment factors.

Keywords: Young teachers, Professional development; Ethnic colleges and universities; Southwest China; Administration model

Introduction

As an important position for talent cultivation and knowledge innovation, modern colleges and universities play an important leading role in many fields such as national politics, economy, and culture (Clark, 2023). With the acceleration of the process of global integration, new ideas, new technologies, and business, market, and economy constitute increasingly close links, modern universities are expected to be able to enter the world-class ranks as soon as possible to enhance scientific and technological strength, enhance cultural confidence, lead economic progress, promote the whole society to accelerate the development of new expectations (Bie, 2018). As the main force of college teachers, young teachers in colleges and universities are important practitioners and promoters of the development of higher education.

The Southwest minority areas lag the central and eastern areas in terms of educational infrastructure, teachers, and teaching environment. This does not benefit the whole body of education and reform to push in. Taking the professional development of young teachers as an example, the professional development of young teachers at colleges and universities is the main force of the reform of university education, and its professional development is directly related to the teaching level and talent training quality of higher education (Li, 2022). On the other hand, college teachers in the southwest minority areas are far from the requirements of

higher education reform in terms of educational ideas, teaching methods, and professional quality.

Promoting the development of the teaching profession has become an important issue that has been widely discussed and urgently needs to be solved in the academic field. To solve this problem, first, identify the main factors affecting the professional development of young teachers in ethnic colleges and universities in Southwest China, explore the mechanism of action between the factors, and innovate the development path. Therefore, based on collecting, sorting out, and summarizing relevant research literature on the professional development of college teachers at home and abroad, this study constructs a professional development model for young teachers in ethnic colleges and universities in Southwest China. To explore the influence of each factor on the professional development of teachers, to provide a reference for the theory and practice of professional development of young teachers in ethnic colleges and universities in Southwest China.

The following research question was posed and was investigated in this study: what development model promotes the professional development of young teachers in ethnic colleges and universities in Southwest China.

Research Objectives

1. To examine the effective administration factors on the Professional Development of Young Teachers in Ethnic Colleges and Universities in Southwest China.
2. To provide a model for promoting of Professional Development of Young Teachers in Ethnic Colleges and Universities in Southwest China.

Literature Review

Teacher Professional Development (TPD) has been a prominent topic in teacher education research across the globe (Kong, 2023). In a broad sense, professional development is the development of a person in his or her professional position. More specifically, "teacher development is the professional growth that teachers achieve by gaining more experience and systematically reviewing their teaching" (Glatthorn, 1995).

The object of this research is young university teachers, and the subject of the study is the influencing factors of their professional development. It can be said that the professional development of young university teachers is affected by the subject's situation, as well as by the micro and macro factors of the school and society in which the subject is located, and these influences are carried out through the intermediary system of teaching, scientific research, social service, and other academic activities of young university teachers. Bronfenbrenner's bio-ecological model and its systematic analytical framework provide a very relevant path for the comprehensive and systematic study of the influencing factors on the professional development of young university teachers. This paper proposes that the structure of factors affecting the professional development of young university teachers mainly includes three categories of factors: social environment, workplace, and individual level. (As shown in Figure 1 The Structure of Factors Influencing the YTPD in Higher Education).

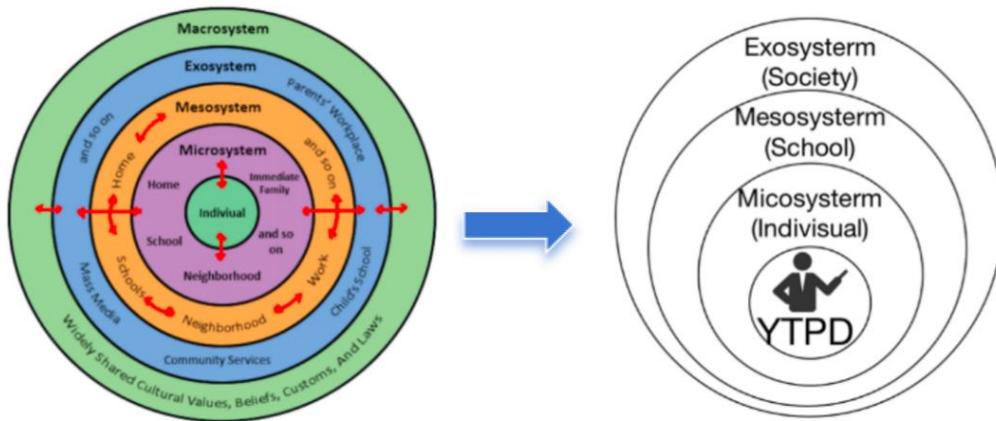


Figure 1 The Structure of Factors Influencing the YTPD in Higher Education. (Source: Constructed by the researcher, 2024)

Fullan & Hargreaves (1992) argue that the structure of teacher professional development includes both the development of knowledge and skills, as well as changes in self-understanding and ecology. They state that "teacher professional development" includes the development of specific aspects of the teacher as well as the teacher's development of pedagogical skills, sense of purpose, and collaboration with colleagues, etc. Li Zhifeng (2013) also pointed out that the development of college teachers should prioritize the development of ethics and morals, and then consider the development of teachers' profession and status, etc. Figure summarizes the synthesis of variables from the study of concepts and theories. The study variables can be summarized as follows. The Structure of Young Teachers' Professional Development (YTPD) in Higher Education includes professional knowledge, professional skills, professional concepts, and professional ethics.

The Individual Teacher Factors (ITF): From the theory of internal and external causes in the materialistic dialectics, we know that the development of anything is the result of the joint action of internal and external causes and that internal causes are the fundamental reasons for the change and development of things (Dong,2022).Through a review of the literature, many educational researchers, who have explored teacher professional development, have concluded that individual teacher factors can have a powerful impact on teacher professional development (Atal & Deryakulu, 2019). Teachers' awareness of autonomous development: specifically manifested in vague understanding of the value of teachers' professional norms and professional development, weak awareness of self-development planning, serious lack of motivation and desire for self-design and self-renewal, and lack of initiative and self-consciousness in development (Yang, 2023). The Individual Teacher Factors (ITF)to Influence YTPD variables can be summarized as follows: Self-development、 Professional Identity、 Teaching Experience and Family Status.

The School Environment Factor (ScE) : These scholars have thoroughly researched and analyzed the impact of school environmental factors on teachers' professional development. They explore the significant impact of factors such as school culture, leadership support, professional development opportunities, collegial collaboration and feedback, and resource support on teachers' professional development. These studies provide educational policymakers, school administrators, and teachers with empirical evidence and practical recommendations on how to create supportive school environments that foster teacher professional development (Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E., 2010; Darling- Hammond, L., Hyer, M. E., & Gardner, M., 2017; Hargreaves, A., & Fullan, M., 2012; Ingersoll, R., & Strong, M., 2011; Little, J. W. , 1990). Lin Guiping (2021) gathered on the professional development of teachers in the smart school environment and proposed that the professional development of teachers is based on the school or regional teaching and research work and the professional development of teachers, with the school as the base and the educational and teaching practice and scientific research activities as the carrier to finally realize the overall growth of teachers. Therefore, research resource support, teamwork, and cultural atmosphere in the learning environment are the most important influencing factors. Literature combing reveals that, first, the work environment of college teachers is often used as a research variable to explore its relationship with other variables. Second, college teachers' work environment can be categorized as hardware environment, institutional environment, interpersonal environment, and development environment in terms of dimensions. According to the object and scope of the study, the school environment variables were identified as regulations, research resource support, cultural atmosphere, and teamwork.

The Social Environment Factor (SoE) : Teacher professional development is a continuous and dynamic process that takes place throughout a teacher's career. Teachers' professional development is influenced by factors from the teacher body, the work environment, and the social environment. External motivation mainly comes from policies and financial support from the state, government, and school levels, as well as the work environment and job requirements. For example, Austin & Sorcinelli (2013) and others believe that teachers need policy support and financial security to have professional development motivation. Sun Hongmei (2023) proposed in a survey of young teachers in colleges and universities in Southwest China's ethnic areas that external environmental factors such as education-related policies and regulations, the social environment atmosphere, and the system and development of colleges and universities all have an impact on the professional development of young teachers. According to the results of the survey, the factors affecting the professional development of teachers are higher education policies and regulations, the social environment such as the culture of respecting teachers.

In conclusion, the current research on the professional development of young teachers in colleges and universities mainly starts from the corresponding problems, analyzes the actual situation of young teachers in colleges and universities, reveals the problems and dilemmas of young teachers in the process of professional development as the dominant direction, explores the causes of the problems, and then puts forward the corresponding suggestions and strategies. However, these approaches and strategies are more from a qualitative point of view to solve the problem of professional development of young teachers in colleges and universities, and there is a lack of research on improving the professional development of young teachers in colleges and universities from a mixed research method.

Research Methodology

1. Participants

The empirical survey of this study mainly focuses on the young teachers (excluding teaching and administrative staff) of universities in Southwest China's ethnic regions who are not higher than 40 years old as the target respondents. The questionnaires were distributed through the Questionnaire Star survey platform. To ensure the scientificity, objectivity, and validity of the survey results, this study adopts the random sampling method to randomly sample young teachers in four ethnic universities in Southwest China respectively, in which the total number of samples is 2,685, Sample 20 times observed variables is 320, the margin of error is 5%, the confidence level is 95%, and the determined sample size is 400, and it is expected that questionnaire surveys will be conducted on 400 young university teachers.

2. Instruments

Based on the literature review and experts' deliberations and ratings, this study designed and developed a questionnaire on the professional development status of young teachers in ethnic universities in Southwest China and conducted the questionnaire survey. For the scale questionnaire, the consistency and validity of the test results were examined by reliability and validity tests.

In this study, the pre-survey was mainly based on the questionnaire star platform for online questionnaire distribution, using random sampling. The survey time was from February 23, 2024, to February 31, 2024, A total of 103 questionnaires were recovered, 3 invalid questionnaires were manually removed, and 100 valid questionnaires were obtained. The effective recovery rate of the final pre-survey was 97.09%. The demographics of the pre-survey sample are shown in Table 1, and all the basic categories of objects are involved.

The common index for the consistency among the internal indicators of the detection and evaluation system is CronbaCh's α coefficient (Cronbach's alpha coefficient). In practice, the Cronbach's α coefficient should be at least greater than 0.5, and preferably greater than 0.7. Table 12 shows the reliability analysis of the pre-survey of this questionnaire. The Cronbach's α coefficients of professional development, personal factors, school factors, and social factors were 0.868, 0.982, 0.88, 0.868, and 0.851 respectively, which were greater than 0.7, indicating the specific good reliability of the study scale.

3. Procedure

The purpose of this study was based on a quantitative design to Effective Administration Model of Professional Development of Young Teachers in Ethnic Colleges and Universities in Southwest China. Data collection for this study was conducted in April 2024. This correlational study collected quantitative data through questionnaires. Participants answered the questionnaire. The questionnaire took approximately 35-45 minutes. After a brief explanation of the purpose of the study, teachers were given the questionnaire. They were also asked not to write their names on the questionnaire. They were only required to provide demographic information such as gender and years of service. After collecting the data, Pearson's correlation coefficient and factors affecting the professional development of young teachers were calculated using SPSS22 software and analysed using structural equation modelling using Amos software²⁴.

Research Conceptual Framework

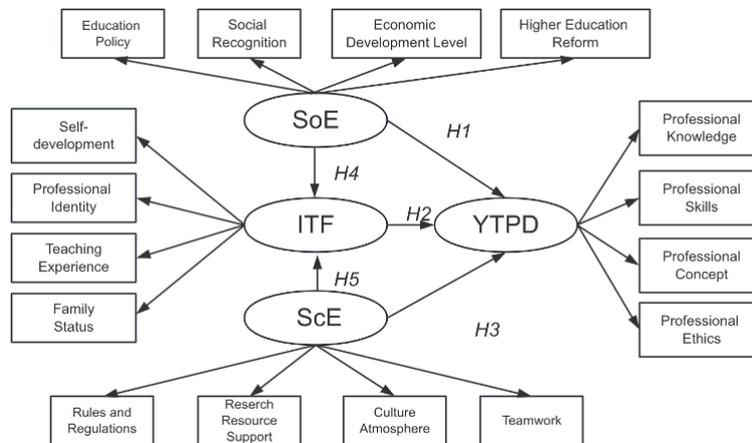


Figure 1 Research Conceptual Framework.
(Source: Constructed by the researcher, 2024)

Research Results

After passing through the pre-survey, the final questionnaire was determined. The researchers distributed the questionnaire online through the Questionnaire Star platform by random sampling from 2024/4/20 to 2024/5/31, and a total of 305 questionnaires were collected. Five invalid questionnaires were manually removed, and 300 valid questionnaires were finally obtained, with an effective recovery rate of 98.36%. Combined with the 100 valid samples from the pre-survey, the final analytical sample size for this study was 400.

1. Model construction

research hypothesis:

H1: School environmental factors (ScE) have a positive impact on the professional development of young teachers (YTPD).

H2: Individual teacher factors (ITF) have a positive impact on the professional development (YTPD) of young teachers.

H3: Social environmental factors (SoE) have a positive impact on the professional development (YTPD) for young teachers.

H4: Social-environmental factors (SOE) influence individual factors of teachers (ITF).

H5: School environmental factors (SCE) affect individual teacher factors (ITF).

H6: Individual factors (ITF) play an intermediary role between social environmental factors (SoE) and young teacher professional development (YTPD).

H7: Individual factors (ITF) play a mediating role between school environmental factors (SCE) and young teacher professional development (YTPD).

2. Test of model fit

Through statistical software, the structural equation model fitting index (Table 2) and the specific structural model map (Figure 2) were obtained, and the fit degree of this model was obtained. From the fitting results of the modified model, the absolute fitting parameter chi-square value (CMIN) of the model is 933.591, the degree of freedom (DF) is 319, and the absolute fitting index (χ^2/ Df) is 2.927. Although it is greater than 3, the excess value is small,

which basically meets the fitting requirements. The goodness of fit index (GFI) was 0.897, the comparative fit index (CFI) was 0.989, and the value-added adaptation index (IFI) was 0.989, all greater than 0.9, meeting the fitting standard value; the approximation error index (RMSEA) was 0.046, less than 0.08, meeting the fitting standard value. Therefore, it shows that the overall fit of the model is good, and the variable model in this study has a good structural validity, which indicates that the young teachers' professional development, personal factors, school factors, social factors and other variables have a good fit.

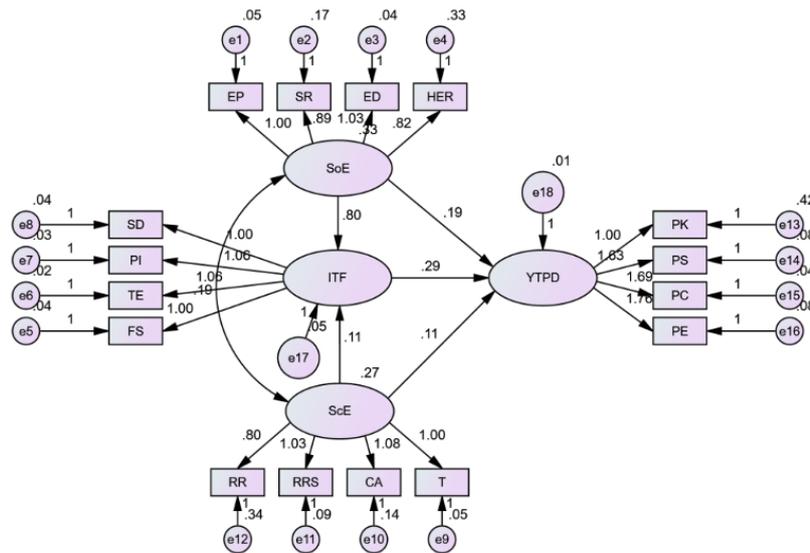


Figure 2 Model path diagram. (Source: Constructed by the researcher, 2024)

Table 2 Table 2 the fitting index

Fitting the index	The standard values were fitted	desired value	Fits
CMIN		933.591	
DF		319	
x2/df	Less than 3	2.927	Good fit
GFI	More than 0.8	0.897	Good fit
CFI	More than 0.9	0.989	Good fit
IFI	More than 0.9	0.989	Good fit
RMSEA	Less than 0.08	0.046	Good fit

3. Model results and effect analysis

According to Table 3 and Table 4 the various path situation of the mediation model can be obtained from the structural equation analysis, and the results are as follows:

(1) School environmental factors (ScE) on the professional development of young teachers (YTPD) ($\beta = 0.109$, $t = 5.069$, $p < 0.001$) were supported, so H1 was established.

(2) The positive impact of individual teacher factors (ITF) on the professional development (YTPD) of young teachers ($\beta = 0.285$, $t = 6.023$, $p < 0.001$) was supported, so H2 was established.

(3) Social environmental factors (SoE) had a positive impact on professional development (YTPD) ($\beta = 0.186, t = 4.673, p < 0.001$), so H3 was established.

(4) The positive impact of school environmental factors (ScE) on individual teacher factors (ITF) ($\beta = 0.114, t = 3.237, p < 0.01$) was supported, so H4 was established.

(5) Social and environmental factors (SoE) had a positive impact on individual teacher factors (ITF) ($\beta = 0.802, t = 21.943, p < 0.001$) were supported, so H5 was established.

(6) The indirect influence of social environmental factors (SoE) on professional development (YTPD) of young teachers was confirmed ($p < 0.001, LL = 0.268, UL = 0.631$), and the mediation effect of individual factors reached 48.35%, so H6 was accepted.

(7) The indirect influence of school environmental factors (ScE) on the professional development (YTPD) of young teachers was confirmed ($p < 0.01, LL = 0.015, UL = 0.122$), and the mediation effect of individual factors reached 13.85%, so H7 was accepted.

Table 3 Path coefficient

Hypotheses			Estimate	S.E.	C.R.	P
SoE	--->	ITF	0.802	0.037	21.943	***
ScE	--->	ITF	0.114	0.035	3.237	0.001
ITF	--->	YTPD	0.285	0.047	6.023	***
SoE	--->	YTPD	0.186	0.04	4.673	***
ScE	--->	YTPD	0.109	0.022	5.069	***

$p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4 Mediation test

	Est.	standard error	Boot CI (95%)		P	mesomeric effect (%)
			lower limit	high lines		
indirect effect	ScE 0.054	0.025	0.015	0.122	0.005	13.85%
	SoE 0.424	0.091	0.268	0.631	0.000	48.35%
direct effect	ScE 0.002	0.068	0.057	0.324	0.002	—
	SoE 0.002	0.112	0.134	0.569	0.002	—
gross effect	ScE 0.390	0.074	0.103	0.390	0.001	—
	SoE 0.877	0.065	0.624	0.877	0.001	—

Discussion

This study constructed an effective administration model for promoting the professional development of young teachers in ethnic colleges and universities in Southwest China, based on a comprehensive review of the relevant literature. The model identifies three key categories of factors that influence young teachers' professional development: individual teacher factors, school environment factors, and social environment factors. The study explored the mechanisms through which these factors interact to shape the professional growth of young teachers.

The findings suggest that to enhance the professional development of young teachers in ethnic colleges and universities in Southwest China, a multi-pronged approach is required. At the individual level, it is crucial to strengthen young teachers' self-development awareness, professional identity, and teaching experience. At the school level, supportive policies, adequate resource support, a collaborative work culture, and strong leadership are essential. At the social level, favorable education policies, a positive societal attitude toward teachers, and sufficient financial support are important enablers.

By adopting this comprehensive administration model, ethnic colleges and universities in Southwest China can better support the professional development of their young teaching staff, thereby improving the overall quality of higher education in the region. The model provides a valuable reference for educational administrators, policymakers, and researchers interested in enhancing the professional growth of young faculty members in minority-serving institutions.

Suggestions

1.Theoretical Suggestions

Further enrich and refine the application of "ecological system" theory in teacher professional development research. This study has borrowed Bronfenbrenner's ecological system theory to construct a conceptual framework involving individual, school, and social levels, which provides an effective approach to analyzing the complex factors influencing the professional development of young teachers in minority universities in Southwest China. Future research can delve deeper into the applicability and limitations of this theoretical framework in different cultural contexts, and further improve the theoretical model. Strengthen theoretical research on the motivational mechanisms of teacher professional development. This study has preliminarily explored how factors at different levels interact and influence the professional development of young teachers, but the motivational mechanisms need to be further refined and validated. Theories such as self-determination theory and social identity theory can be adopted to more deeply analyze the intrinsic drivers and external incentive mechanisms of teacher professional development.

2.Policy Suggestions

Improve the policy system for teacher development in minority universities. The government should formulate targeted policies to provide financial, infrastructure, and teacher training support for minority universities, promoting the construction of the teaching staff. Optimize the working environment and incentive mechanisms in minority universities. Schools should establish a sound teacher career development channel, improve promotion, performance appraisal, compensation and benefits systems, and create a campus culture that is conducive to teacher professional development. Strengthen public services for teacher professional development in minority regions. The government and all sectors of society should increase investment in teacher training and continuing education in minority regions, and establish a sound teacher professional development service system to improve the overall quality of teachers.

3. Further Suggestions

Conduct longitudinal tracking research. This study is a cross-sectional study. In the future, longitudinal tracking research can be designed to dynamically observe the professional development status and influencing factors of young teachers at different development stages, and deepen the understanding of the evolution process of professional development. Expand the research subjects and methods. This study focuses on universities in the Southwest minority regions. In the future, the research scope can be expanded to compare the similarities and differences in the professional development of young teachers in different regions and types of universities. At the same time, mixed research methods combining quantitative and qualitative analysis can be attempted to gain a more comprehensive understanding of the influencing factors.

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