

A SURVEY ON THE PERCEIVED LEVEL OF PROFESSIONAL IDENTITY AMONG TEACHERS AT HENAN UNIVERSITY OF SCIENCE AND TECHNOLOGY IN CHINA

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Abstract: This study mainly explores the current status of professional identity among university teachers at Henan University of Science and Technology in China and explores management paths for improvement. This study surveyed 283 university teachers through a questionnaire survey method. During the research process, independent sample t-tests, descriptive statistics, and one-way analysis of variance were used. The results showed that: 1) the overall perceived professional identity of teachers at Henan University of Science and Technology was at a relatively low level. There was no difference in professional identity between male and female teachers of different genders, while there were significant differences in professional identity among university teachers of different ages, educational backgrounds, and teaching experience; 2) In terms of age: Teachers aged 46-55 have a higher level of professional identity than those aged 25-35, 56 and above, and 36-45. 3) In terms of education, teachers with a doctoral degree have a higher level of professional identity than those with a master's or undergraduate degree. 4) In terms of teaching experience: Teachers with 16 years or more of professional identity level are higher than teachers with 11-15 years, 6-10 years, and 5 years or less. Finally, based on the findings of the exploration, the researchers proposed suggestions for improving the level of teacher professional identity.

Keywords: Professional Identity, University Teachers, Henan University of Science and Technology

Introduction

From the advancement of human technology to the development of human spiritual culture, higher education permeates every aspect of society and plays a very important role in promoting the progress of human civilization and the development of social structure. University teachers, as mentors for talent cultivation and leaders of students' spirit and values, occupy a central position in higher education. With the continuous development of higher education, research on the professional identity

of university teachers is also of great significance in promoting the development of higher education.

British educator Holmes pointed out that "professional identity is a subjective feeling originating from the heart, which requires harmony between body and mind, meaning a sense of balance and comfort in various dimensions of life. Chinese scholar Yu Huihui believes that teacher professional identity refers to the evaluation and response of teachers to individual and collective physical, psychological, environmental, and social events (Yu, 2006). Teacher professional identity is related to the appointment and retention of teachers, job satisfaction, efficacy, and professional performance, and has an impact on student academic performance. Studies have shown that universities can address teacher burnout through policy measures, such as reducing work family conflicts, workload, and administrative paperwork. In addition, it is beneficial for young teachers and participation." Providing more work resources to teachers who sponsor projects is also a way to address the issue of burnout. However, the study also found that quickly publishing innovative research, providing high-quality large class teaching, and combining academic excellence with management and entrepreneurial skills may lead to teacher burnout. The subjective professional identity of teachers has a positive and significant impact on the quality of school teaching (Tang, 2009). Career development is one of the important factors that affect the subjective professional identity of teachers. When teacher career development shows a positive trend, teachers will invest more time and energy in educational work.

President Xi pointed out in Hold High the Great Banner of Socialism with Chinese Characteristics and Work in Unity for the Comprehensive Construction of a Socialist Modernized Country Report on the 20th National Congress of the CPC that education is the major plan of the country and the party, and what and how to cultivate people is the fundamental issue of education. Chen and Wu (2018) pointed out that occupational identity involves two interdisciplinary fields of positive psychology and occupational psychology, mainly referring to the satisfaction of self-actualization needs, and the positive emotions and satisfaction generated by the evaluation of career related elements. This study aims to analyze and study the current situation of professional identity among university teachers, identify the factors that affect the professional identity of teachers at Henan University of Science and Technology in China, and provide reference for the planning and adjustment of the teaching staff of the school.

Henan University of Science and Technology currently has 1200 full-time teachers. Among these teachers, 440 hold senior professional titles, 7 are co academicians, 1 is a Central Plains scholar, 7 are provincial distinguished professors, and 49 are doctoral students; Among them, there are 205 national level experts in the "National Outstanding Experts" and "Hundred and Ten Million Talents Plan", experts who enjoy special allowances from the State Council, provincial outstanding experts, academic and technical leaders in Henan Province, subject leaders in Henan Province, and outstanding teachers. This study is based on in-service teachers at Henan University of Science and Technology in

China. Starting from the aspect of professional identity, it explores the level and differences of professional identity among university teachers, in order to provide effective reference for the management of university teachers.

Research Objectives

(1) Understand the overview of variables related to different demographic backgrounds of teachers at Henan University of Science and Technology.

(2) Understand the current level of perceived professional identity among teachers at Henan University of Science and Technology.

(3) Analyze the differences in perceived professional identity among teachers at Henan University of Science and Technology under different demographic variables.

Literature Review

The connotation of teacher professional identity

Professional identity refers to the emotional experience and cognitive satisfaction that individuals gain in their professional life, which stems from their emotional attachment and sense of identity towards their profession. At the same time, professional identity is closely related to the satisfaction of work needs and the realization of expectations (Wei, 2005). When work satisfies an individual's needs for self-actualization, social connections, and a sense of achievement, individuals often feel the joy and satisfaction of their professional life. In addition, individual satisfaction with work content, work environment, colleague relationships, and other aspects can also enhance their professional identity. It can be said that career identity is an important indicator for evaluating a person's quality of professional life. It will reflect a person's experience and satisfaction with their career at different stages over time and in different environments.

Regarding the connotation of teacher professional identity, different scholars have conducted in-depth discussions from several aspects. Work emotion is a stable emotional attitude towards one's career. As an important figure in cultivating the next generation, teachers bear a huge responsibility, and a sense of professional responsibility is the core of teacher professional identity. They need to always pay attention to the growth of students and be responsible for their future. Li (2016) believes that individuals with strong work emotions usually have a greater love for their work, are more willing to put in effort for it, and are also more likely to obtain a sense of satisfaction and achievement from their work. Salary and benefits refer to the remuneration that a person receives through work, usually including basic salary, bonuses, allowances, benefits, etc. Liu (2023) provided monetary compensation to employees based on laws, industries, or agreements reached with them. The compensation can be calculated in various ways such as hourly, monthly, or annual wages. The work environment refers to

the working atmosphere composed of natural individuals in a work team, including team spirit, team communication, team skills, etc.

A good work environment can improve the work enthusiasm and efficiency of team members, enhance team cohesion and creativity. Zhou and Ning (2020) believe that a high-quality work environment can not only improve the work efficiency and satisfaction of teachers, but also enhance their sense of professional identity and belonging. The profession itself is not only the role played by individuals in the social division of the labor system, but also an important way for them to realize self-worth and pursue life satisfaction. Shao (2020) believed that there is a close and complex relationship between profession itself and professional identity. Effectiveness generally refers to the expected good effect and efficacy achieved. In the work environment, effectiveness usually refers to the actual effectiveness and benefits of work results, including the quality, quantity, benefits, and other aspects of work.

Wang (2013) believed that work effectiveness usually refers to the results or goals achieved in the work process, covering multiple aspects such as work efficiency, output quality, and performance. Interpersonal relationships are the interpersonal relationships formed by people within a certain social group, which are not only constrained by their psychological characteristics, but also observable and perceptible. Li (2016) expressed in his research on social relationships that interpersonal relationships are directly or indirectly observable and constrained by psychological characteristics within a certain social group. By establishing and maintaining good interpersonal relationships, people can better adapt to society, meet their own needs, and promote the common development of individuals and society. Physical health is an important guarantee of work efficiency.

A healthy body can help individuals maintain abundant energy and a good working state, thereby improving work efficiency and quality. Wang (2013) believed that physical and mental health is an important foundation for professional identity. A healthy physical and mental state can make individuals more confident and proactive in facing work challenges, thereby enhancing their sense of professional identity. Physical health ensures sufficient energy and endurance to cope with tasks and responsibilities in work, while mental health helps individuals maintain a positive attitude when facing difficulties and pressure, enhance their investment and enthusiasm in work.

The environments in which researchers work vary, and their research results on the connotation of teacher professional identity vary. In the field of education, discussions on professional identity are mainly expressed in seven dimensions: work emotions, salary and benefits, work environment, profession itself, work effectiveness, interpersonal relationships, and physical health.

Theoretical and Research on Teacher Professional Identity

American scholar Robert Ryan first proposed the concept of "professional identity". Bei Jaard, &Verloop (2004) and their coauthors proposed that professional identity refers to the positive

evaluation made by individuals in various aspects of their work, consisting of five dimensions: emotion, motivation, behavior, cognition, and physical and mental well-being. Professional identity is a professional identity obtained in a person's career. Bogler (2001) pointed out that professional identity refers to the balance and comfort of various dimensions in life, that is, teachers can achieve a sense of balance and comfort in various dimensions in their career. Van den Berg (2002) pointed out in his article that the professional identity of teachers comes from a sense of satisfaction and security in their work completion, as well as a combination of material and spiritual satisfaction brought by work.

Scholars Van der Wal, Oolbekkink Marchand, Schaap, &Meijer, (2019) point out that the professional identity of teachers is a joyful experience that enables them to achieve their career goals and unleash their potential for continuous growth in their careers.

Chinese scholar Wei Shuhua combined the actual situation of Chinese education and used theoretical analysis methods to divide teacher professional identity into six factors: professional awareness, emotions, will, skills, expectations, values, and identity (Wei, 2005). By 2012, Chinese scholars represented by Wei & Song developed a teacher professional identity scale suitable for Chinese primary and secondary school teachers through the introduction of the concept of teacher professional identity. They also conducted a sampling survey of teachers in various regions and provinces of China, including Shandong, Liaoning, Jiangsu, Chongqing, Sichuan, Xinjiang, Guangxi, etc., to explore the current situation and influencing factors of teacher professional identity in primary and secondary schools (Wei, 2005; Wei & Song, 2012). Starting from this, teacher professional identity has gradually become an important issue in the field of Chinese teaching profession, and research on Chinese teacher professional identity has entered a period of vigorous development.

Tang (2009) pointed out that the professional identity of teachers is the sense of meaning and satisfaction that teachers bring when doing their job; Through impact analysis, it is found that the four factors that affect teacher professional identity are: personal factors, school factors, educational system factors, and cultural factors. Zhou (2010) cited Maslow's needs theory and believes that a teacher's professional identity is when their basic needs are met, and this sense of satisfaction brings happiness to the individual. It is an important aspect of a teacher's professional life and an important indicator for measuring their quality of work and life. Focusing on the improvement of professional identity not only helps to improve the quality of teachers' work and life, but also helps to improve the quality of education.

Shao (2020) stated the professional identity of teachers determines their basic attitude towards work behavior and deeply influences their feelings towards themselves and their profession. Only when teachers establish an internal professional identity can they have inner spiritual satisfaction, feel the happiness and life value brought by their profession, and truly develop their profession. Based on interviews, Zhang Jiawei, Li Ying, and Lu Li (2021) believe that teacher professional identity is a

secondary factor model composed of six factors: student development, friendship, job satisfaction, work performance, work autonomy, and value achievement.

As an important component of China's education system, university teachers shoulder multiple tasks such as cultivating talents, inheriting culture, and conducting scientific research. However, in real life, many university teachers face problems such as high work pressure and limited career development, leading to their low professional identity. Each scholar has a different perspective on examining professional identity, and the definition of professional identity in this study is to gather the research results of multiple scholars, extract a definition that is suitable for the characteristics of Henan University of Science and Technology, and explore the current situation of professional identity among university teachers.

Perceived Professional Identity of Teachers under Different Population Background Variables

Banerjee, et al. (2017) pointed out that from the perspective of teacher work background, demographic variables play a crucial role in the professional identity of university teachers. Teacher professional identity is a complex concept that is influenced by various demographic variables.

Scholars have explored different results regarding the impact of demographic variables on teachers perceived professional identity.

Firstly, age factor: Some studies have shown that age has a significant impact on a teacher's professional identity. Young teachers are usually more likely to feel unsatisfied, while older teachers are more inclined to feel unsatisfied. Chen, et al. (2020) found in their research that young teachers face more career development pressure and challenges, while older teachers have more experience and a sense of achievement.

Woo (2015) suggested that gender may also affect teachers' professional identity. Generally speaking, female teachers are more likely to feel satisfied than male teachers, which may be due to the dominance of women in the field of education and their greater emphasis on emotions and interpersonal relationships. The study by Li (2012) also indicates this situation. Wu (2017) pointed out that male teachers have slightly higher professional identity than female teachers, but this difference is not significant. Educational background factor: Teachers' educational background can also affect their professional identity. Jiang and Yan (2006) believed that teachers with higher education levels are usually more likely to feel satisfied because they have more professional knowledge and skills to better cope with career challenges. Finally, the factor of teaching experience: Hofman J. E. and Kremer L. (1981) pointed out that individual teachers with different teaching experiences have significant differences in their professional attitudes towards self, teaching, and quality in various aspects of their professional identity.

In order to enhance the professional identity of teachers, education departments and schools

should pay attention to their personal background and needs, provide them with better working conditions and development opportunities, as well as more professional training and support. At the same time, teachers themselves should actively respond to challenges and pressures, seek personal growth and development, in order to better cope with professional challenges and enhance professional identity (Wang, 2015).

Methodology

This study takes teachers from Henan University of Science and Technology in China as the research object. There are a total of 1200 teachers from Henan University of Science and Technology. A convenient sampling survey method was used in this study, and a total of 283 questionnaires were collected for investigation.

This study focused on the industry of university teachers and selected a mature scale developed by predecessors. The teacher professional identity survey questionnaire revised by Zu in 2021 was used to measure teacher professional identity (Zu, 2021). The Cronbach's alpha coefficient for teacher professional identity in this scale is 0.955, and the internal consistency alpha coefficients for each dimension are 0.650-0.931, both greater than 0.6. The reliability and validity are at a good level.

Results

Demographic Analysis of Questionnaire Participants

The sample of university teachers surveyed in this questionnaire is 283 people. The statistical results of the basic information of the subjects show that among the gender variables, there are 121 males, accounting for 42.8%, and 162 females, accounting for 57.2%. The proportion of female teachers participating in the survey is higher than that of males, and the overall gender ratio is not significantly different. Among the age variables, 83 people aged 25-35, accounting for 29.3%, 128 people aged 36-45, accounting for 45.2%, 58 people aged 46-55, accounting for 20.5%, and 14 people aged 56 and above, accounting for 4.9%. Among them, the number of people aged 36-45 is slightly higher, accounting for more than 40% of the overall age ratio. In the educational variables, there are 67 undergraduate students, accounting for 23.7%, 153 master's students, accounting for 54.1%, and 63 doctoral students, accounting for 22.3%. The number of teachers with master's degrees is relatively concentrated, which is related to the current comprehensive improvement of educational requirements for in-service teachers in universities. The distribution of educational qualifications is basically consistent with reality. In the variable of teaching experience, there are 62 people with 5 years or less, accounting for 22%, 48 people with 6-10 years, accounting for 17.3%, 45 people with 11-15 years, accounting for 15.7%, and 128 people with 16 years or more, accounting for 45%. Among them, there are slightly more people with 16 years or more of teaching experience, accounting for more than 40%

of the total teaching experience.

Descriptive statistics on the willingness of college teachers to move

The mean score of the professional identity level of teachers at Henan University of Science and Technology is at a relatively low level (M=2.65), and the mean score in all dimensions is also lower than the mean level. The highest mean is work effectiveness (M=2.96), followed by interpersonal relationships (M=2.82), profession itself (M=2.77), work emotions (M=2.60), physical and mental health (M=2.54), work environment (M=2.47), and the lowest is salary and benefits (M=2.13), indicating that the overall level of professional identity of teachers at Henan University of Science and Technology is low.

Table 1: Descriptive statistical analysis of professional identity among university teachers (N=283)

Professional identity	Mean	SD
Work Emotions	2.60	0.42
Salary and Benefits	2.13	0.68
Work Environment	2.47	0.37
Career Itself	2.77	0.44
Work Effectiveness	2.96	0.35
Interpersonal Relationship	2.82	0.32
Physical and Mental Health	2.54	0.54
Overall	2.65	0.16

Analysis of Differences in Professional Identity of College Teachers under Different Population Background Variables

The professional identity of teachers at Henan University of Science and Technology shows significant differences in age, education level, and teaching experience. There is no significant difference in the level of professional identity of teachers under different gender factors.

Under different age factors, there is no significant difference in the overall and sub dimensions of teacher professional identity, including work emotions, interpersonal relationships, and physical and mental health; However, there are significant differences in the dimensions of salary, work environment, and profession itself.

Under different educational status factors, the overall and sub dimensions of teacher professional identity, including salary, work environment, and work effectiveness, have all reached a significant level; However, there were no significant differences in dimensions such as work emotions, profession itself, interpersonal relationships, and physical and mental health.

Under different factors of teaching experience, the overall and sub dimensions of teacher

professional identity, including work emotions, work environment, work effectiveness, interpersonal relationships, and physical and mental health, all reach a significant level; However, there was no significant difference in the dimensions of salary and benefits, as well as the profession itself.

Discussion

Basic Situation of Professional Identity of College Teachers

The overall mean score of teacher professional identity is 2.65, with a mean score of 2.96 for work effectiveness, 2.82 for interpersonal relationships, 2.77 for the profession itself, 2.60 for work emotions, 2.54 for physical and mental health, 2.47 for work environment, and 2.13 for salary and benefits. Overall, the professional identity level of teachers at Henan University of Science and Technology is at a relatively low level.

Differences in Professional Identity of College Teachers under Different Demographic Factors

There are significant differences in the professional identity of teachers at Henan University of Science and Technology according to demographic factors.

The comparison results of different educational backgrounds show that there is a significant difference in the overall professional identity of university teachers, that is, the level of professional identity of undergraduate and doctoral degrees is higher than that of master's degrees. This result is similar to the research findings of Suarez (2022), which pointed out that the higher the education level, the stronger the coping ability and the higher the perceived level of occupational identity.

The comparison results of different age differences show that there is a significant difference in the overall professional identity of university teachers, with the highest level of professional identity among those aged 46-55, followed by teachers aged 25-35 and 56 or above, and finally teachers aged 36-45. According to the research results of Meng (2009), there are significant differences in age in three aspects of teacher professional identity: interpersonal relationships, school management, and occupational stress.

The comparison results of differences in teaching experience show that there are significant differences in the overall professional identity of university teachers, with teachers with 16 years of teaching experience and above having the highest level of professional identity, followed by teachers with 11-15 years of teaching experience and 6-10 years of teaching experience, and finally teachers with 5 years of teaching experience and below. In Wang's (2013) study on teaching experience, there were significant differences in occupational identity between professional titles and teaching experience, and in terms of salary and benefits, teaching experience showed a significant positive correlation. The higher the teaching experience, the stronger the sense of occupational identity.

From the comparison of gender differences, there is no significant difference in the professional

identity of university teachers, which is similar to the conclusion drawn in Zu's research (Zu, 2021).

Conclusions

1) The perceived level of professional identity among teachers at Henan University of Science and Technology is relatively low.

2) There is no significant difference between teachers of different genders; There are significant differences in professional identity among university teachers of different ages and teaching experiences, with varying levels of education. There are significant differences in the level of professional identity among university teachers of different ages. Teachers aged 46 to 55 have the highest level of professional identity, followed by teachers aged 25 to 35 and 56 or above, and finally teachers aged 36 to 45. There are significant differences in professional identity among university teachers with different educational backgrounds. Teachers with undergraduate and doctoral degrees have the highest job satisfaction, followed by those with master's degrees. There are significant differences in the level of professional identity among university teachers with different teaching experiences. Teachers with 16 years or more of teaching experience have the highest level of professional identity, followed by teachers with 11-15 years of teaching experience, teachers with 6-10 years of teaching experience, and finally teachers with 5 years or less of teaching experience.

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