THE INFLUENCE OF OCCUPATIONAL IDENTITY ON PROFESSIONAL ENGAGEMENT OF YOUNG TEACHERS IN COLLEGES AND UNIVERSITIES IN GUANGXI, CHINA: THE MEDIATING ROLE OF PSYCHOLOGICAL TOUGHNESS

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Abstract: This study aims to investigate the impact of professional identity on professional engagement among young teachers in colleges and universities in Guangxi, China, as well as the mediating role of psychological resilience between professional identity and professional engagement, and the differences in the three variables among teachers of different genders and degrees. Using the questionnaire method, the online questionnaire was completed and answered through the questionnaire star, and a total of 500 questionnaires were distributed. The subjects of this study are young teachers under the age of 40 in three colleges and universities in Guangxi, China. In this study, SPSS was used to analyze the pre-test questionnaire and the formal questionnaire. The research results are as follows: The professional identity of young teachers in colleges and universities in Guangxi, China has a positive and significant impact on professional engagement; the professional identity of young teachers in colleges and universities in Guangxi, China has a positive and significant impact on psychological resilience; Influence; Mental resilience of young teachers in colleges and universities in Guangxi, China has a mediating role in professional identity and professional engagement.

Keywords: Occupational Identity; Engagement; Mental Toughness

I. Research background

In the process of social development, education is the focus of attention, and teachers play an important role in the development of education (Xing Tingting and Wang Ning, 2015). Teachers are not only imparters of knowledge, but also guides and role models for students. Their words and deeds have had a profound impact on the growth and development of students (Meng Xianlei, 2016). However, due to the lack of teachers, the student teacher ratio in most universities in Guangxi cannot meet the national requirements (Luo Heng and Li Meiqing, 2021). In order to alleviate this situation, Guangxi has introduced a large number of young teachers. This approach not only solves the problem of teacher shortage, but also promotes the youthfulness and development of universities in Guangxi. Young teachers are the main force in the development of universities, possessing rich knowledge and experience, full of vitality and creativity. Their growth plays a crucial role in the development of universities or the entire higher education system. (Yang Xin and Deng Yan, 2017). The
role of young teachers in universities is increasingly valued. Young teachers refer to in-service teachers under the age of 40 who work in teaching and research positions in universities. They are an important force in the teaching team of universities, undertaking important tasks such as cultivating talents, promoting scientific research, and serving society (Chen Siying and Wang Heng, 2016). Due to the relatively low level of economy and development in the western region, as well as the relatively backward teaching and research conditions in universities, many young teachers have been lost. At the same time, universities in the eastern region have a phenomenon of fast introduction speed, abundant talents, and slow outflow, resulting in a one-way trend of talent flow that is high in the east and low in the west (Qing Sulan, 2021). However, the teaching and research level of universities in the southwest region is relatively high, but due to remote geographical location and relatively lagging development, it is difficult to retain young teachers (Cui Yan and Shen Chuang, 2018).

At present, there are few empirical studies specifically targeting young university teachers in the study of their engagement (Xiao Mingyu et al., 2015). Moreover, the poor engagement and high mobility of teachers in Guangxi, as mentioned earlier, have always been a problem that needs to be addressed by the education department in Guangxi. Therefore, this study takes young teachers from Guangxi universities as the research object to explore the mediating role of psychological resilience in professional identity and engagement.

II. RESEARCH OBJECTIVE

The research objectives of this study are summarized as follows:
- Exploring the differences in professional identity, engagement, and psychological resilience among young teachers from universities in Guangxi, China with different background variables (gender, education);
- Exploring the impact of professional identity on professional engagement among young teachers in universities in Guangxi, China;
- Exploring the impact of professional identity on psychological resilience of young university teachers in Guangxi, China;
- Exploring the impact of psychological resilience on engagement among young university teachers in Guangxi, China;
- Exploring the mediating role of psychological resilience in professional identity and engagement among young university teachers in Guangxi, China.

III. RESEARCH QUESTIONS

The research questions of this study are as follows:

A. What are the differences in professional identity, engagement, and psychological resilience among young teachers from universities in Guangxi, China, with different background variables (gender, education)?

B. How does the professional identity of young university teachers in Guangxi, China affect their engagement?

C. How does the professional identity of young university teachers in Guangxi, China affect their psychological resilience?

D. How does the psychological resilience of young university teachers in Guangxi, China affect their engagement?
E. What is the mediating role of psychological resilience among young university teachers in Guangxi, China in their professional identity and engagement?

IV. Innovation points

A. The topic of this study is derived from the practical problems and emerging challenges in the field of human resource management in universities in Guangxi, China. Against the backdrop of relatively insufficient supply of university teachers in the southwestern region, the existing policies and service systems still need to be further improved. Exploring this topic in depth is of great significance for fully utilizing the role of professional identity, promoting psychological resilience and professional engagement, and meeting the expectations of the people for higher education. In addition, domestic and foreign scholars mostly focus on enterprises and employees in their research, with relatively little emphasis on university teachers (Li Xiangnan et al., 2022; Liu Fang et al., 2023; Zhang Zhe and Liu Hanxiang, 2022). And existing research often focuses on a single dimension, lacking research that combines professional identity, psychological resilience, and engagement. This study focuses on young university teachers in Guangxi, China, and explores the integration of these three elements, enriching the content of this research field.

B. Based on the research results, this study proposes some suggestions for teacher human resource management from three levels: macro government, meso universities, and micro teachers, which are suitable for the actual situation of universities in Guangxi, China. These suggestions can provide guidance for government education authorities and universities to develop more scientific, humane, professional, and refined teacher management systems and policies. At the same time, these suggestions can also help individual teachers better adapt to the reform and development of higher education, transform pressure into motivation, enhance psychological resilience, enhance professional engagement, and provide beneficial references for them.

V. Research object

In Chinese universities, young teachers under the age of 40 account for about 50% of the total number of teachers. This proportion demonstrates the significant position of young teachers in the education system of universities, gradually becoming the main driving force for teaching and research. They undertake a large number of teaching and research tasks and make important contributions to the quality of teaching and research achievements in universities (Yang Xin and Deng Yan, 2017). Young teachers in universities refer to in-service teachers under the age of 40 who work in teaching and research positions in universities (Chen Siying and Wang Heng, 2016). The research scope of this study includes young teachers from three universities in Nanning, Guilin, and Liuzhou, Guangxi. Among them, universities located in Nanning include the College of Agricultural Engineering, the College of Animal Science and Technology, the College of Information Engineering, and the College of Food and Drug Engineering; The universities located in Guilin include the School of Literature, the School of History, Culture and Tourism, the School of Law, and the School of Education; The universities located in Liuzhou include the School of Mechanical Engineering, the School of Civil Engineering and Architecture, the School of Automobile and Transportation, and the School of Management. However, the teacher turnover rate in these schools is relatively high and may require more attention and improvement. The three selected schools cover different regions and have different natures, with
three universities running throughout Guangxi, China. In recent years, these three schools have hired many young teachers, so they have monthly assistance and training activities for young teachers, which is convenient for centralized sampling. Therefore, these three universities are selected as the target sample group.

VI. Sample data analysis

This study distributed 540 questionnaires, deleted 33 invalid questionnaires, and collected a total of 507 valid questionnaires. From Table 4.1, it can be seen that in terms of gender distribution, the majority of the samples are female, with a proportion of 58.97%. The proportion of male samples is 41.03%. From the perspective of educational background, there are relatively more master's degrees in the sample, accounting for 39.84%. In addition, the proportion of undergraduate samples is 32.54%, and the proportion of doctoral samples is 27.61%.

VII. Reliability Analysis

After using SPSS software for reliability analysis, the total engagement table Cronbach's Alpha was shown to be 0.925, with the vitality dimension Cronbach's Alpha being 0.884, the dedication dimension Cronbach's Alpha being 0.861, and the focus dimension Cronbach's Alpha being 0.886. The Cronbach's Alpha of the Occupational Identity Inventory is 0.932, with the dimensions of role values being 0.899, occupational behavioral tendencies being 0.887, occupational values being 0.853, and occupational sense of belonging being 0.830. The Cronbach's Alpha of the Psychological Resilience Inventory is 0.919, with the dimension of love and dedication in teaching and learning being 0.891, the dimension of self-efficacy for teachers being 0.857, and the dimension of job satisfaction and optimism being 0.864. The Cronbach's Alpha values of the overall and sub dimensions of the three scales are generally greater than 0.7, indicating that the scale is reliable (Qiu Haozheng, 2005). Reliability refers to the consistency and stability of measurement results of measurement tools at different times, by different raters, and in different situations.

VIII. Research conclusion

This study is elaborated based on the results of statistical analysis. Firstly, the current analysis of the professional identity, engagement, and psychological resilience of young university teachers in Guangxi, China, as well as the differences in professional identity, engagement, and psychological resilience among young university teachers from different background variables (gender, education) in Guangxi, China; Secondly, the relationship between professional identity, engagement, and psychological resilience is explored. Finally, the mediating effect of psychological resilience of young teachers in Guangxi universities in China between professional identity and engagement is explored.
1 Current Status of Professional Identity, Engagement, and Psychological Resilience of Young Teachers in Guangxi Universities, China

1.1 Current status of professional identity among young teachers in universities in Guangxi, China

In this study, the dimensions and overall current situation of professional identity of young teachers in Guangxi universities in China are all above average. This is the same as previous studies, where Xu Dazhen and Han Xiao (2015) found that the overall and various dimensions of professional identity among newly hired teachers are at a moderate to upper level. Zhang Kui Kui and Li Jun (2009) studied vocational school teachers and found that their sense of professional identity was generally high. The reason for this is that the object of this study is university teachers, and in China, the university teaching profession is regarded as a stable and respected profession (Wang Haiyan, 2021), so it naturally generates a strong sense of identification with one's own profession. In addition, with the increasing emphasis on education and investment in education by the country, the social status of the profession of teachers is also increasing year by year, which further promotes the recognition level of the teacher community towards their own profession to improve year by year.

1.2 Current Status of Professional Engagement of Young Teachers in Universities in Guangxi, China

In this study, the professional engagement of young teachers in universities in Guangxi, China, in all dimensions and overall current situation, is above average. This is the same as in previous studies. Wang Xinqiang et al. (2017) used a student evaluation scale and found that the total score of university teacher engagement and its three factors were higher than the median, at a slightly above average level. In China, education is widely regarded as a noble and important cause, and teachers are regarded as the backbone of society's talent cultivation (Cao Yong, 2018). With the increasing emphasis and investment of the country in education, university teachers have made certain improvements in teaching conditions, teaching resources, and career development. This improvement has also increased their sense of identification with their profession, thereby stimulating higher levels of professionalism.

1.3 Current Status of Psychological Resilience of Young College Teachers in Guangxi, China

In this study, the psychological resilience of young university teachers in Guangxi, China, in all dimensions and overall current situation, is above average. This is the same as previous studies, such as Lin Xiaojiao's (2015) study, which showed that the overall average score of psychological resilience of university teachers and their average scores in various dimensions are above average. The reason for this is that as educators, they need to face the diversity of students' learning situations, differences in family backgrounds, and potential challenges that may arise in the school education system (Yang Pingping and Sun Yumei, 2020; Zhang Peng et al., 2019). The high level of psychological resilience enables teachers to adapt to such an educational environment, maintain a positive attitude, and continuously demonstrate excellent teaching skills. Therefore, the level of psychological resilience of teachers is on the medium to high side.
2 Differences in background variables in professional identity, engagement, and psychological resilience

2.1 Differences in occupational identity among background variables

There are significant gender differences in the professional identity of teachers of different genders. In terms of professional identity, men are significantly lower than the average for women. Therefore, there are significant differences in occupational identity among young teachers of different genders in Guangxi universities in China in H1a, and this hypothesis is valid. This result is consistent with the research results of Song Guangwen and Wei Shuhua (2006), where female teachers have a higher level of professional identity than male teachers. Consistent with the research findings of Lin Yanxin (2019), it was found that the level of professional identity among female teachers in vocational schools is relatively higher than that of male teachers, and female teachers in vocational schools have a higher recognition of the profession of teaching. The reason for this is that in traditional Chinese social beliefs, women are often seen as representatives of gentleness, carefulness, and caring for others, which is in line with the teaching care and attention to students required by the teaching profession (Ji Chunmei, 2019). Therefore, women are more likely to find career development directions that meet their social role expectations in the field of education, which makes them more likely to develop higher professional identity.

Different educational samples exhibit consistency in occupational identity, but there is no difference. Therefore, H1b: There are significant differences in the professional identity of young university teachers with different educational backgrounds in Guangxi, China, and this hypothesis is not valid. This result is contrary to the research results of Zhu Fuping (2012) and Li Ershu (2016). This study suggests that there is no significant difference in professional identity among teachers with different educational backgrounds. This may be due to the fact that teachers with different educational backgrounds already possess corresponding educational backgrounds and professional knowledge when entering universities to engage in educational work, resulting in a relatively consistent threshold for entering the teaching profession (Li Mingqi, 2019). Therefore, they may have high consistency in educational concepts and professional identity.

2.2 Differences in Engagement of Background Variables

There is a significant gender difference in the engagement of teachers of different genders. The engagement score for males is 3.19, while the engagement score for females is 3.34. By comparison, it can be seen that males are significantly lower than females. Therefore, H2a: There is a significant difference in the professional engagement of young teachers in Guangxi universities of China between different genders, and this hypothesis is valid. However, Feng Nan (2019) and Guhaier Nisha Maimaiti (2018) believe that the average professional engagement of male teachers is higher than that of female teachers, which is different from their hypothesis in this study. In the field of education, the proportion of female teachers is generally higher, which may be related to the tendency of women to engage in education and social care work (Ao Junmei and Lin Ling, 2020). In contrast, men may be more inclined to choose other career fields, which may lead to some individuals among male teachers who have less enthusiasm for the education industry.
There are significant differences in engagement among different educational samples. Specifically, a master's degree is higher than a bachelor's degree. Therefore, H2b: There is a significant difference in the engagement level of young teachers from universities in Guangxi, China, with different educational backgrounds. This hypothesis is valid. The research results are similar to those of Bai Yuping et al. (2022), where teachers with a master's degree have higher levels of engagement than those with a bachelor's degree. The reason for this is that obtaining a master's degree requires higher academic attainments and professional knowledge in education. Teachers who choose to pursue a master's degree may be more focused on the education industry and have a higher pursuit and recognition of their profession (Yi Huapeng et al., 2019). Master's degree teachers have invested more time and energy in their studies, resulting in a high level of dedication in teaching and research.

2.3 Differences in psychological resilience of background variables

Teachers of different genders showed consistency in psychological resilience, without significant differences. Therefore, H3a: There are significant differences in the psychological resilience of young university teachers of different genders in Guangxi, China, and this hypothesis is not valid. This result is different from Gong Zhihui (2022) and Lin Xiaojiao (2015). Psychological resilience refers to the psychological trait of an individual's resilience and strong adaptability when facing challenges, pressure, and adversity (Brunetti, 2006). The profession of teaching requires high levels of psychological resilience, and both males and females need to possess a certain level of psychological resilience to cope with various challenges in teaching (Han Xiao and Li Tonggui, 2014). Therefore, there may be consistency in career choices and traits among teachers of different genders.

Education level shows significant differences in psychological resilience, and the post comparison results show that master's degree is higher than undergraduate degree, and doctoral degree is higher than undergraduate degree. Therefore, H3b: There are significant differences in the psychological resilience of young university teachers with different educational backgrounds in Guangxi, China, and this hypothesis is valid. This result is similar to Liu Duanhai et al. (2021), which divided education into two options: undergraduate and graduate or above. The results show that teachers with graduate or above education have better psychological resilience than those with undergraduate education. The reason for this is that pursuing a master's and doctoral degree usually requires facing more academic challenges and research pressure, including academic requirements, research projects, and paper writing (Du Qiang et al., 2019). During this process, master's and doctoral students may develop stronger psychological adaptability and resilience to cope with academic challenges and pressures (Ren Kexin, 2020). The exercise of psychological resilience during this academic stage may lead teachers holding master's and doctoral degrees to exhibit higher psychological resilience in their careers.

3 The impact of professional identity, engagement, and psychological resilience

3.1 The impact of professional identity on engagement

The analysis of the results in this study shows that professional identity has a significant positive impact on engagement. Therefore, hypothesis 4 holds, i.e. H4: The professional identity of young university teachers in Guangxi, China has a positive and significant impact on their engagement. This survey result is consistent
with Zhang Xiakeer and Zhao Liang (2022), Liu Wei and Zhang Mianhao (2019). This may be because the higher the level of recognition a teacher has of their profession, the more professional satisfaction and happiness it usually brings (Tang Jiayi and Wang Yan, 2019). Satisfaction and happiness will further enhance teachers’ engagement and dedication to their work, making them more willing to face challenges and difficulties in their work (Zou Weixing et al., 2022).

3.2 The impact of professional identity on psychological resilience

The analysis of the results in this study shows that professional identity has a significant positive impact on psychological resilience. Therefore, hypothesis 5 holds, that is, H5: The professional identity of young university teachers in Guangxi, China has a positive and significant impact on psychological resilience. This survey result is consistent with Wang Li (2017), Ai Juan, and Yang Tong (2016). Teachers with strong professional identity usually believe that they are capable and valuable in the field of education, and this sense of self-efficacy is an important component of psychological resilience (Li Shuoyun et al., 2022). The higher a teacher’s professional identity, the more likely they are to believe that they have the ability to cope with difficulties and challenges in their career, thereby demonstrating higher psychological resilience.

3.3 The impact of psychological resilience on engagement

The analysis of the results in this study shows that psychological resilience has a significant positive impact on engagement. Therefore, hypothesis 6 holds, i.e. H6: The psychological resilience of young teachers in Guangxi universities in China has a positive and significant impact on their engagement. This research result is consistent with Mao Jinping and Xie Ying (2013). Professional identity means that teachers closely connect their identity with the education industry, viewing themselves as educators and guides for student development (Wu Ping, 2022). This kind of self-identity and role identification helps to enhance teachers' self-awareness and self-awareness in their profession, making them more confident and determined to face various challenges in their profession.

3.4 The mediating role of psychological resilience

The analysis of the results in this study shows that psychological resilience plays a partial mediating role in the impact of professional identity on engagement. Therefore, hypothesis 7 holds, i.e. H7: The psychological resilience of young university teachers in Guangxi, China plays a mediating role in professional identity and engagement. This research result is consistent with Lin Yanxin (2019). Psychological resilience enhances teachers' ability to cope with challenges and pressure, helping them maintain a positive work attitude. Teachers with high professional identity are more inclined to actively respond to difficulties in their careers due to the reinforcement of psychological resilience, thereby demonstrating higher levels of professionalism. Therefore, psychological resilience, as a psychological trait, plays a partial mediating role between professional identity and engagement.
VIX. Future research recommendations

Firstly, future research can consider adopting a longitudinal research design to track the changes of teachers at different time points, in order to obtain more comprehensive and accurate data. In addition, qualitative research methods such as interviews or focus group discussions can be combined to gain a deeper understanding of the underlying motivations behind teachers' inner experiences and changes, thereby better revealing the long-term evolution of psychology and behavior. Integrating multiple research methods will help to explore the relationship between teacher professional identity and psychological resilience more comprehensively, as well as its dynamic changes, in order to provide more specific suggestions and guidance for enhancing the engagement of young teachers in universities.

Secondly, in order to obtain more objective and comprehensive data, a student evaluation scale for teacher engagement can be introduced to obtain observations and feedback on teacher engagement from the perspective of students. By comparing student evaluations with teacher self-evaluation, we can delve deeper into the gap between the two and further reveal the diversity and complexity of university teacher engagement. The evaluation of teachers by students is an important feedback mechanism that can reflect the actual performance of teachers in teaching and interaction with students. By introducing students' perspectives, it is possible to more accurately understand the specific performance of teachers in terms of engagement, thereby enhancing the objectivity and credibility of research results. However, student evaluation may also be influenced by subjective factors, so when introducing student evaluation, it is necessary to carefully select questionnaires to ensure that they accurately reflect the teacher's engagement.

In summary, the findings of this study provide valuable clues for understanding the impact of professional identity on engagement and the mediating role of psychological resilience among young university teachers in Guangxi, China. However, by introducing more research methods, data sources, and multiple research perspectives, future research can more comprehensively reveal the formation mechanism and changing patterns of professional engagement among young university teachers, thereby providing more specific guidance strategies for improving work engagement and career satisfaction of university teachers.