

Study on Influencing Factors of Pre-service English Teachers' Beliefs based on NVivo 12

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Abstract

Teacher belief is the internal driving force of teacher professional development, which has been paid more and more attention by scholars at home and abroad. Based on grounded theory, this study used NVivo 12 software to conduct qualitative analysis of 28 relevant literatures. It is found that there are many factors affecting the beliefs of pre-service English teachers, and there are hierarchical relationships in these factors. Personal backgrounds are the internal factors that affect the beliefs of pre-service English teachers, while family, society and school are the external factors. The internal and external factors are interrelated. Among them, personal experience in personal backgrounds and school environment, educational practice and course learning in school factors belong to the core factors, and the rest are sub-core factors. The results of this study can lay a foundation for future research on the influencing factors of pre-service English teachers' beliefs. At the same time, based on the analysis results and findings, this study also puts forward relevant suggestions, in order to provide references for constructing a systematic and scientific belief system and improving the professional development level for pre-service English teachers.

Keywords

Pre-service English Teachers' Beliefs; Influencing Factors; Qualitative Analysis; NVivo 12.

1. Introduction

Before 1970s, under the influence of behaviorism, teacher education research mainly focused on teacher behavior. After the 1980s, cognitive psychology began to rise and develop, thus promoting the focus of teacher education research began to turn to teacher cognition. Among them, the research of teacher belief has received extensive attention. Teacher belief is an important concept for understanding teachers' thinking process and teaching practice (Zheng, 2009). It is also an important part of teacher professional development, affecting teacher decision-making and behavior, and even affecting the quality of education development. Therefore, teacher belief is an important consideration in educational research, which aims to help teachers develop their own ideas and practices. Teacher belief is formed by teachers' personal life, learning experience and teaching practice, and its formation and change will be affected by various factors. The in-depth exploration and analysis of these factors will help clarify the relationship between teachers' beliefs and their teaching behaviors. It is worth paying attention to the fact that teacher belief has sprout in their student stage (Xie Yi, Ma Yunpeng, 2007; Wang Jiaoli, 2021). Therefore, paying attention to the influencing factors of pre-service teachers' beliefs can help them build a good teacher belief system before they become formal teachers. However, domestic researches pay little attention to the influencing factors of pre-service English teachers' beliefs, and the conclusions are also different due to different methods and perspectives. In order to have a comprehensive and in-depth understanding of the factors that affect the beliefs of pre-service English teachers, this study first conducted a literature review about teacher beliefs, looking for the similarities and differences between domestic and foreign teacher beliefs research on the concept and the research status, so as to

clarify the ideas for exploring the factors that influence the beliefs of domestic pre-service English teachers. Then, this study adopts the qualitative research method, uses NVivo 12 to analyze and summarize the main influencing factors of pre-service teachers' beliefs, and finally puts forward relevant suggestions.

2. Literature Review

2.1. Concept of Belief and Teachers' Belief

Belief is often viewed as concepts associated with cognition, behavior, and emotion (Rokeach, 1968; Zhou Shuang, 2015; Kavanoz et al, 2017). Cabaroglu and Roberts (2000) described that belief is a conceptual description, which is a guide to an individual's thoughts and actions. Furinghetti and Pehkonen et al (2002) argue that belief is personal subjective knowledge, which includes people's emotional factors. Khader (2012) defines belief as an individual's judgment and assessment of himself, others and the things around him, and belief is derived from the ideas generated during personal observation and thinking. Some scholars also link belief and culture with society, holding that belief contains cultural views, and the formation of belief is influenced by social and cultural construction (Hamilton, 1993). It can be seen that different researchers have different understandings of belief, and therefore there is no unified definition of belief (Pajares, 1992). However, most scholars agree that belief has the characteristics of stability and persistence, but belief is not immutable and will change under the influence of different factors. Therefore, belief is dynamic (Furinghetti & Pehkonen, 2002). Some scholars put beliefs into a system to analyze, and judge the strength of different beliefs according to their positions in the belief system. Studies have shown that the more central beliefs are, the higher their intensity is and the less likely they are to change, while other beliefs in peripheral positions are more likely to change (Jin Aidong and Ma Yunpeng, 2013). Thus, belief is a structure system composed of various beliefs, such as individual thoughts and concepts. However, not all ideas and concepts can be called beliefs. Only those ideas and concepts that resonate with individual cognition, experience and emotion and are internalized by individuals can be called beliefs (Zhao Changmu, 2004).

Teacher belief is a part of the belief system, so it also has the characteristics of belief. Kagan (1992) defines teacher beliefs as the assumptions that teachers hold about teaching, students, learning and learning materials, which are usually implicit and unconscious. Pajares (1992) also points out that teacher belief is the unquestionably held ideas about teaching work, their own role, curriculum and students in the teaching environment, which coincides with Kagan's definition. Porter & Freeman (2002) believe that teacher belief refers to teachers' orientation towards teaching, including teachers' belief in students, learning process, and school's role in society (as cited by Li Runzhou, 2015). Some scholars also believe that teacher belief is an important idea to explain teachers' thinking process, teaching method and learning and teaching (Borg, 2003; Zheng, 2009). The teacher belief of different subjects has different characteristics. As far as the belief of language teachers is concerned, scholars at home and abroad generally agree with Brog's interpretation of the belief of English teachers. He believes that English teacher beliefs are composed of teaching, language, learning, curriculum, students and teachers (Brog, 2001). By comparing the overall teacher beliefs, it can be found that language teacher beliefs not only pay attention to teaching, curriculum and students, but also pay attention to the discussion of language itself, which makes the foreign language teacher beliefs different from those of other subjects.

Domestic scholars also have different definitions of teachers' beliefs. Similar to Brog's idea, Liu Hua (2004) believes that teachers have formed a teacher belief system in long-term teaching practice, which includes beliefs in teacher, language, classroom, teaching, learning and other aspects. Jin Aidong and Ma Yunpeng (2013) define teacher belief as the views, attitudes and

psychological tendencies held by teachers in the teaching process from a historical and cultural perspective. Such belief began to form when teachers were students and provided references for subsequent teaching practices. Li Runzhou (2015) defined teacher belief from static and dynamic aspects, that is, teacher belief not only contains educational cognitive components, but also has certain educational emotion and will structure, and is the internal driving force of educational action through teachers' educational practice activities.

Therefore, teacher belief is often connected with teachers' self-knowledge, teaching, curriculum and students. It is implicit for teachers' cognition and emotion of various elements of education, and it is also explicit in teachers' educational practices. Therefore, teacher belief is not only implicit but also explicit.

2.2. Research Status of English Teachers' Beliefs at Home and Abroad

In terms of time, the research on teacher belief in foreign countries is earlier than that in China. As early as the 1970s, the research focus of teacher education in foreign countries has changed from teachers' external teaching behaviors to teachers' internal educational beliefs. However, China only began to pay attention to this new field of research in the early part of this century; In terms of methods, the empirical research of teacher belief at home and abroad mainly adopts the methods of questionnaire, interview, observation and log. In terms of content, domestic and foreign scholars mainly discuss from the following aspects: the correlation between teacher belief and teaching behavior, the influencing factors of teacher belief, the relationship between teacher belief and teacher professional development, and the comparative study between pre-service teachers and in-service teachers. This part will focus on the four main contents of English teachers' belief research at home and abroad.

2.2.1. Research on the Correlation between Teacher Belief and Teaching Behavior

Domestic and foreign scholars mainly explore the correlation between teachers' beliefs and teaching behaviors through classroom teaching practices, that is, study whether teachers' teaching behaviors reflect teachers' beliefs (Xiang Maoying, Zheng Xinmin et al, 2016). Studies have shown that teachers' teaching behaviors can reflect their teaching beliefs (Johnson, 1992; Farrell & Kun, 2007; Chen Hong, Guo Chunning, 2009; Radwan, 2019), but there are also studies showing that there are differences in teachers' teaching behaviors and teaching beliefs (Chen Bingbing, Chen Jianlin, 2008; Lee, 2008; Phipps & Borg, 2009; Huang Min & Francis Bond, 2018). Because the academic community has not reached a unified conclusion on whether the two are consistent, this field has been one of the concerns of teacher belief research. However, in terms of the influence relationship between teacher belief and teacher behavior, most studies show that the two are not one-way decision relationship, but mutual influence. Zheng (2009) concluded that the beliefs of pre-service English teachers will affect their behaviors in the classroom, which in turn will shape their beliefs. Jin Aidong and Ma Yunpeng (2013) also found through literature survey that teachers' teaching beliefs and behaviors influence each other, and at the same time, beliefs and other external factors jointly affect teaching behaviors. Therefore, there are differences between teaching belief and teaching behavior, and they are inseparable.

2.2.2. Research on the Influencing Factors of Teacher Belief

Teacher belief is complex and dynamic, and its formation and change are bound to be affected by many factors. There are many in-depth researches on the influencing factors of teacher belief at home and abroad. In the field of foreign language education, it is widely believed that teacher beliefs are closely related to the three practical topics of foreign language education: teacher education, teacher's previous language learning experience and classroom practice (Zheng, 2009). Many studies bear this out. For example, Clark-Goff and Eslami (2016) compared the beliefs and attitudes of pre-service English teachers about language learning before and after their course learning and found that the beliefs of pre-service English teachers would be

changed by educational courses. Kavanoz, Yüksel & Varol (2017) also confirmed the influence of teacher education on changing pre-service language teachers' beliefs through research. The results show that teacher education enables pre-service teachers to combine theory with practice, thus changing their previous beliefs. Chmarkh (2021) concluded through literature research that the most influential factor for pre-service English teachers is their experience as language learners, and successful educational experience is the key to successful teaching. For pre-service English teachers, internship is the main classroom practice activities. Zhang Qingzong and Wu Xiyan et al (2015) found through their research that pre-service English teachers would revise their original beliefs repeatedly during internship, especially in the discipline of students. But there are also studies that teaching practice has little influence on teachers' beliefs (Matthewoudakis, 2007; Farrell & Bennis, 2013). Some studies have found that teacher belief is also influenced by personal factors of teachers (such as characteristics, self-efficacy, motivation, ability, gender, etc.) (Polat, 2010; Zhou Shuang, 2015; Balci et al, 2019), and external environment (such as teaching environment, family background, social and cultural background, etc.) (Zhang Fengjuan, Liu Yongbing, 2011; Devine et al, 2013; Yuan, & Lee, 2014; Pusparini et al, 2021; Wang Jiaoli, 2021). It can be concluded that the formation and development of teachers' beliefs are not the result of a single factor, but are jointly affected by internal and external causes.

2.2.3. Research on the Relationship between Teacher Belief and Teacher Professional Development

Teacher belief is closely related to teacher professional development, and can even be said to be the key to teacher professional development (Xu Chunjie, 2020). Clarke and Hollingsworth (2002) established an interactive model of teacher professional growth that includes personal, external, practical and consequence areas. These four areas are interconnected through enactment and reflection and jointly affect teacher change. Among them, the individual field includes teachers' beliefs. De Vries, van de Grift et al (2013) further demonstrated that teachers' beliefs about learning and teaching are related to teacher professional development through empirical research. Many domestic scholars also believe that there is a correlation between the two. Among them, some scholars put forward a social support system for the professional development of rural teachers from a regional perspective, in which there are four kinds of support: professional system, professional value, professional culture and professional belief, and believe that belief support is the internal driving force to maintain the professional development of teachers, and its function is to construct teachers' professional self-identity (Wu Liangkui, 2015). Therefore, in order to better promote the professional development of teachers, teachers should form beliefs that can promote their professional development and change those negative beliefs. For example, if teachers hold the belief of lifelong learning, they will continue to reflect and learn during their professional development, but if they lack this belief, they will only see teaching as a task (Zheng, 2009), thus hindering their professional development.

2.2.4. Research on the Comparative Study between Pre-service Teachers and In-service Teachers

In the research on teacher beliefs, most scholars pay more attention to in-service teachers' beliefs. However, with the deepening of the research, researchers also begin to analyze the differences between the beliefs of pre-service teachers and in-service teachers, in order to better promote the professional development of pre-service and in-service teachers. Some studies have shown that in-service teachers have more positive beliefs and openness, while pre-service English teachers have a lower belief level (Xiong Meihua, Zhong Bin et al, 2013). In terms of the characteristics of teachers' beliefs, some studies have pointed out that pre-service teachers' beliefs are ideal and simple, while in-service teachers' beliefs are more realistic and

stable (Liu Xiaojuan, 2015). As for the characteristics of effective teachers, some scholars believe that pre-service teachers attach importance to personal characteristics of teachers, such as kindness, patience and friendliness, while in-service teachers attach more importance to knowledge, energy and sense of humor (Tajeddin & Alemi, 2019). This result suggests that the characteristics that in-service teachers should possess for effective teachers are influenced by their teaching experience, while pre-service teachers are considered in terms of their background as learners. In terms of classroom teaching methods, compared with in-service teachers, pre-service teachers are more inclined to student-centered classrooms (Ismailos, Gallagher et al, 2019). Some scholars have also explored the differences between experienced teachers and novice teachers. For example, Farrell & Bennis (2013) found that experienced teachers make teaching decisions mainly based on their cognition of students' learning needs, while novice teachers tend to make students happy. In conclusion, domestic and foreign scholars have conducted comparative analysis of pre-service and in-service teachers from different perspectives, which is of great significance to education reform. However, due to different research variables, the research results may be different.

To sum up, the research on teacher belief at home and abroad mainly focuses on teaching behavior, influencing factors, teacher professional development and comparison between pre-service and in-service. With the continuous development of science and technology, in recent years, many scholars have also begun to link teacher belief with technology integration (Ertmer & Ottenbreit-Leftwich, 2010; Xiong Bingzhang, 2014; Chand & Deshmukh et al, 2020). However, there are few researches on the combination of beliefs of foreign language teachers in this field.

3. Research Design

3.1. Data Sources

Based on the CNKI database, the advanced retrieval is carried out with the topics of "Pre-service teacher beliefs; English", "Pre-service Teacher beliefs; Foreign Language" and "Beliefs of English normal University Students". At the same time, the time span and years were selected as all, the search scope was academic journals and featured journals, and finally a total of 53 literatures were obtained. In order to ensure the reliability and validity of the study, 28 sample literatures were obtained after analysis and screening, and repeated literatures and literatures not strongly related to the subject were eliminated.

3.2. Research Tools and Methods

The grounded theory is a qualitative research method that advocates the construction of theory from empirical data (Chen Xiangming, 1999). It was proposed by Glaser and Strauss in the 1960s. This study is based on this theory, adopts qualitative research methods, and uses the qualitative analysis software NVivo 12 to code and analyze the selected 28 documents, thus forming different levels of concepts, categories, so as to explore the core influencing factors affecting pre-service English teachers' beliefs and the relationship between these factors.

3.3. Data Coding Process

According to the localization principle in the grounded theory, this research adopts the three-level coding method to analyze the data from the bottom up.

3.3.1. First-Level Coding

First-level coding belongs to the open coding stage, that is, the process of analyzing the original data in detail and assigning tags according to the data meaning to establish some conceptual categories. In this study, the first-level coding comes from the direct factors affecting the beliefs of pre-service English teachers in the literature. Through analysis and comparison, 202 third-level coding nodes are finally obtained.

3.3.2. Second-level Coding

Second-level coding belongs to the axial coding stage. In this stage, the concept categories formed in open coding need to be further analyzed and summarized, which is the process of establishing the overarching category and sub-category. With the help of NVivo 12, 202 third-level nodes were coded in the second-level, and a total of 15 second-level nodes were obtained. Then, four first-level nodes were summarized: personal backgrounds, family factors, social factors and school factors.

3.3.3. Third-level Coding

Third-level coding belongs to the selective coding stage. This stage requires the identification of core categories among several main categories. Core categories should have representative and dominant characteristics and be able to relate to other generic concepts (Yang Liqin & Guo Jiong, 2022). In order to better determine the core category, this study summarized the first-level nodes again and finally divided them into internal factors and external factors. In other words, the influencing factors related to pre-service English teachers themselves were classified as internal factors, while the rest were external factors. In this study, internal factors only include personal backgrounds, while external factors include family, society and school. Both internal and external factors affect the beliefs of pre-service English teachers. Therefore, the core category of this study is finally determined to be “influencing factors of pre-service English teachers’ beliefs”. Finally, the relationship diagram shown in Fig.1 is obtained.

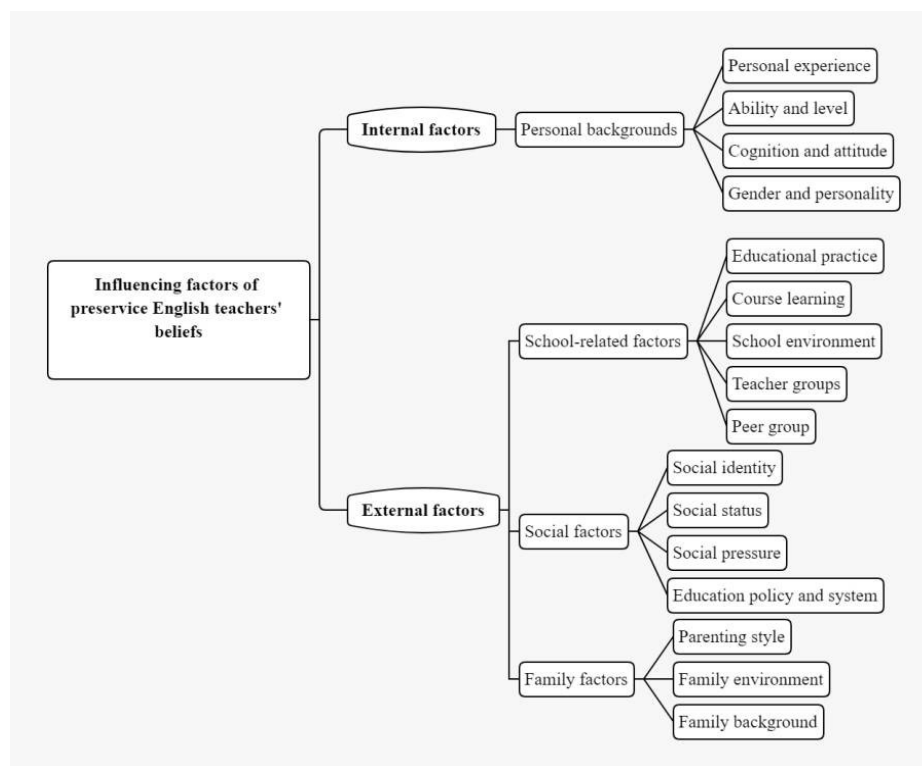


Fig. 1 The relationship between factors influencing pre-service English teachers’ beliefs

4. Data Results and Analysis

4.1. Internal Influencing Factors

The personal backgrounds of pre-service English teachers are internal factor affecting their teaching beliefs, including personal experience, ability and level, cognition and attitude, gender and personality, which is the second-level node of data coding, as shown in Table 1. In the second-level node, the number of codes of personal experience is the largest, with a total of 55

reference points, accounting for 61% of the total codes of personal backgrounds. This indicates that pre-service English teachers generally believe that personal experience, such as life experience, learning experience and educational experience, has the most influence on their beliefs, which is consistent with the research results of Chmarkh. If pre-service English teachers have a good personal experience, their beliefs will be strengthened; otherwise, it will affect their future teaching cognition and behavior. Ability and level occupy 14 nodes, including pre-service English teachers' knowledge level and teaching ability. Pre-service English teachers with good knowledge level and teaching ability will have more mature belief structure and deeper thinking about teaching phenomena. Without solid professional basic knowledge and teaching ability, the belief of pre-service English teachers will only be simple with no practical significance (Li Yuhuan, Zhao Xiaoguang, 2015). There are 17 reference points for cognition and attitude, including pre-service English teachers' cognition and emotion towards themselves, teaching, learning and students. For example, a pre-service English teacher who agrees that vocabulary is the most important thing in foreign language learning would focus his teaching on vocabulary learning (Zheng, 2009). In addition, gender and personality nodes account for relatively little, indicating that domestic scholars pay little attention to gender and personality in the study of pre-service English teachers' beliefs, and the influence of these two factors on pre-service English teachers' beliefs is not obvious, but these two aspects should also be paid attention to. Gender and personality, as the internal conditions of teachers, also make different pre-service English teachers have differences and diversity of beliefs.

Table 1. The second-level nodes and the number of coded reference points in personal background factors

First-level nodes	Second-level nodes	Number of coded reference points
Personal backgrounds (92)	Personal experience	55
	Ability and level	14
	Cognition and attitude	17
	Gender and personality	6

Note: The numbers in brackets of the first level nodes are the sum of the number of reference points coded by the second level nodes. The same as below.

4.2. External Influencing Factors

4.2.1. School-related Factors

School factors include five secondary nodes, namely school environment, educational practice, curriculum learning, teacher group and peer group, with a total of 88 reference points. They are the most important external influencing factors, as shown in Table 2. Among them, a large number of references refer to the influence of educational practice and curriculum learning on pre-service teachers' beliefs. Pre-service English teachers are required to participate in teaching practice activities arranged by the school before becoming regular teachers, such as internship. Therefore, this is their first experience of classroom teaching and their first real perception of teacher status (Zheng, 2009), and their beliefs will change accordingly. But at the same time, a large number of literatures also show that pre-service English teachers' beliefs can also shape their teaching practices. The courses cover language specialized courses and educational theory courses. The belief formed in teaching practice is subjective, but the learning of these courses can help pre-service English teachers form a more systematic and scientific belief system. The school environment includes the culture, evaluation standards, educational system and class environment of the colleges and universities where pre-service English teachers study and the middle and high schools where they practice. If the school advocates a student-centered philosophy, then pre-service teachers will form beliefs related to this or change their original beliefs that are contrary to this philosophy. The teaching methods,

teaching styles and teaching attitudes of teacher groups, such as course teachers, supervisor and instructors in practice school, will have an impact on the beliefs of pre-service English teachers. Peer groups have also been the focus of some research. Pre-service teachers interact with their peers most of the time, and their peers' opinions and behaviors will influence the development of their beliefs imperceptibly.

Table 2. The second-level nodes and the number of coded reference points in school-related factors

First-level nodes	Second-level nodes	Number of coded reference points
School-related factors (88)	Educational practice	26
	Course learning	21
	School environment	28
	Teacher groups	9
	Peer group	4

4.2.2. Social Factors

Social factors refer to the factors that influence pre-service English teachers' beliefs outside of school and family, including four second-level nodes: social identity, social status, social pressure and foreign language education policy and system, as shown in Table 3. Their reference points are relatively small compared to other factors, but they should not be ignored. The beliefs of pre-service English teachers are influenced not only by self-identity but also by social identity. In recent years, the social status of teachers is constantly improving, which has a positive impact on the beliefs of pre-service English teachers. But external expectations of teachers also bring invisible social pressure to teachers, which to a certain extent has a negative impact on teachers' beliefs. At present, foreign language education policy and systems of our country are being perfected and developed continuously. Policies and systems are binding on teachers, and the early beliefs of pre-service English teachers will change with the changes of systems and policies. Therefore, to some extent, the system and policy promote the change of beliefs of pre-service English teachers.

Table 3. The second-level nodes and the number of coded reference points in social factors

First-level nodes	Second-level nodes	Number of coded reference points
Social factors (15)	Social identity	4
	Social status	4
	Social pressure	2
	Education policy and system	5

4.2.3. Family Factors

Family factors have the least reference points in external factors, as shown in Table 4. While receiving school education, pre-service English teachers are also influenced by family education. Before they formally take the role of teachers, they have formed many opinions about education in their minds. Parents' education mode, family environment and family background are the most important aspects of family factors. Parents' views, attitudes and opinions on education will indirectly affect the beliefs of pre-service English teachers. For example, in terms of career choice, if pre-service English teachers engage in education just to comply with their parents' wishes and treat teachers as a tool to make a living, rather than really like it, it will affect their understanding of the profession.

Table 4. The second-level nodes and the number of coded reference points in family factors

First-level nodes	Second-level nodes	Number of coded reference points
Family factors (7)	Parenting style	1
	Family environment	5
	Family background	1

Through the above data results and analysis, the following conclusions can be drawn.

Firstly, there are three layers of influencing factors of pre-service English teachers' beliefs. The first layer consists of four primary nodes: personal background, social factor, family factor and school factor. The second layer consists of 15 second-level nodes. The third layer consists of 202 three-level nodes that directly affect the beliefs of pre-service English teachers.

Secondly, there are many factors affecting the beliefs of pre-service English teachers, which can be divided into internal factors and external factors. Personal background is internal factor, while family, society and school are external factors. Among them, according to the number of coded reference points, personal experience in personal backgrounds and school environment, educational practice and curriculum learning in school-related factors are the core factors that affect the beliefs of pre-service English teachers, and the rest are sub-core factors.

Thirdly, internal and external factors are interrelated. Through data analysis, it can be found that internal and external factors do not independently affect the beliefs of pre-service English teachers, which is consistent with the findings in the literature review. For example, as mentioned above in the cognitive field of pre-service English teachers, personal identity and social identity jointly affect the development of their beliefs.

Fourthly, there is a lack of research exploring the impact of information technology on the beliefs of pre-service English teachers. Through literature review at home and abroad, it is found that in recent years, some scholars have begun to pay attention to the relationship between information technology and teacher belief, and it is confirmed that there is indeed a correlation between the two. However, this result is not obtained in the results of this data encoding. Therefore, domestic research on the beliefs of pre-service English teachers has not involved with technology, which is also the current research blank.

5. Implications

Beliefs are part of the process of understanding how pre-service English teachers shape their behavior. Some scholars believe that pre-service English teachers' beliefs, rather than knowledge, can affect their teaching behaviors and teaching decisions more (Gilakjani & Sabouri, 2017). However, as pre-service English teachers, due to their lack of experience, they may have an inappropriate understanding of teaching and learning, which affects the construction of their belief system. Therefore, this study puts forward the following suggestions. The pre-service English teachers need to become reflective teachers. Self-reflection and efforts of pre-service English teachers are the most critical to make the construction of their beliefs an active process rather than passive acceptance. At the same time, pre-service English teachers' beliefs not only contain conscious beliefs, but also unconscious beliefs, that is, teachers may hold unrecognized beliefs that are manifested in teaching practice (Wang Jiaoli, 2021). Therefore, in order to better study the beliefs of pre-service English teachers and promote their professional development, it is necessary to dig deeper into the unconscious beliefs of teachers. Therefore, it is necessary for college educators to encourage them to reflect on their beliefs in the practice of teaching behaviors with themselves as objects. If there is a contradiction between behaviors and beliefs, pre-service teachers should dare to question existing beliefs and find out the problem, so as to improve and update their self-belief system. On the one hand,

pre-service English teachers can use teaching logs to record their thoughts and feelings in the process of education, find and reflect on the relationship between educational behaviors and educational beliefs, so as to promote the positive development of beliefs in continuous reflection. On the other hand, in view of the influence of peer groups on beliefs, pre-service English teachers can also establish a positive teacher group belief system by building a learning community to communicate and reflect on the similarities and differences between peer beliefs and their own beliefs. In addition, pre-service English teachers should actively communicate with experienced teachers in the process of learning and teaching, and examine and reflect on their own beliefs based on their teaching experience.

At the same time, colleges and universities should provide more opportunities of practical ability training for pre-service English teachers. The improvement of practical ability can cultivate teachers' professional belief and improve their teaching confidence (Li Yuhuan, Zhao Xiaoguang, 2015). At present, the school education practice is mainly based on internship, but some pre-service English teachers are afraid of practice due to the lack of practical experience before internship, which affects the development of their beliefs. Therefore, schools can appropriately increase the proportion of practical courses when setting the curriculum, such as microteaching. Teachers of practical courses should conduct more case teaching analysis from real classes and provide students with practice opportunities, so as to help students connect theory with practice and enrich their teaching beliefs. Schools should also attach importance to providing some educational training for students, such as training of educational experts and communication meetings between pre-service and in-service teachers, as well as teaching competitions to enrich their educational understanding and develop their practical ability, such as courseware design competition and simulation teaching competition.

6. Conclusion

As the filter of education reform, educational belief has become an important field of education research at home and abroad in recent years (Dong Qi, Dong Beifei, 2021). Understanding the influencing factors of pre-service English teachers' beliefs is of great significance for improving their professional preparation and teaching practice (Radwan, 2019). Through data analysis, it is found that pre-service English teachers' beliefs are influenced by both internal and external factors, among which personal experience of internal factors and school environment, educational practice and curriculum learning of external factors are the core influencing factors. By exploring the beliefs of pre-service English teachers, this paper clarifies the factors that promote and restrict the formation and change of their beliefs, and puts forward relevant strategies for cultivating the beliefs of pre-service English teachers, which points out the direction for promoting the belief development of pre-service English teachers. At the same time, the study also points out the current research gap in the field of influencing factors of pre-service English teachers' belief in our country. However, there are still some shortcomings in this study. First, in the process of data coding analysis, the understanding of the literature is subjective, which may lead to certain bias in the research results. Therefore, further confirmation and verification are needed. Secondly, the reference type of this research is mainly journals, so the number of literatures related to the topic can be selected is small. Later research can increase the data of master and doctoral papers for analysis, so as to increase the number of effective literatures. Finally, the literature selected in this study mainly comes from domestic databases, and there is a lack of foreign scholars' analysis on the factors influencing pre-service English teachers' beliefs.

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