

Research Article

Prospective Study on Professional Competence Development Planning of Higher Education Teachers in the Context of Big Data

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Teachers play a key role in education, and education plays a key role in national development. The combination of these two key points fully confirms the key role of teachers in national development and social prosperity. Strengthening the teaching force is the most important basic work for educational development. At present, improving teacher training, professional quality, and teaching ability has become an important measure to improve the quality of personnel training in vocational training institutions. Only through in-depth analysis of training problems and targeted reforms can we improve the quality of training and make teacher training truly serve vocational training. Therefore, this study explores the problems and causes and proposes countermeasures by conducting a prospective study on vocational competence planning of higher vocational teachers under big data, based on a full analysis of Chinese and foreign literature.

1. Introduction

To strengthen the internal construction and improve the urgent requirement of quality education, the Ministry of Education previously issued the Opinions on the Implementation of Teacher Quality Improvement Plan for Vocational Colleges and Universities (2017–2020), pointing out that a high-level teacher team should be built. By 2035, the comprehensive quality of teachers' teaching level will be greatly improved, and the training of millions of backbone teachers, going to thousands of excellent teachers and hundreds of thousands of excellent teachers, is a good request for China. This opinion has raised many requirements for the construction of a high-level teaching force, and in the twenty-first century, in the face of these requirements not only to improve the level of teaching, but also to improve the quality of teacher construction. Therefore, it is urgent to improve the construction of teachers.

Due to the special nature of higher vocational teacher construction, higher vocational construction is different from undergraduate construction, and higher vocational construction should have more characteristics of education

vocational education. Teachers' professional ability is a necessary condition for higher vocational education and a fundamental condition for teachers' professionalism.

Teachers must have strong professional ability to play an important role in the construction of the teaching team. Teacher training is a necessary requirement to improve the construction of the teaching force and an essential way to improve the quality of individuals. Under the requirement of improving the core as the connotation, it is essential to build a high-level capacity development plan for higher education teachers. Teacher development and opportunities are divided into two issues: one is the external aspects, such as the treatment of teacher's salary teachers' level, and the second is the internal problems of teachers, including teacher moral knowledge ability quality and so on, the ability to improve the quality of teachers, including learning, such as internal and external learning and self-learning and external training. Teacher training can include teachers to improve their own quality and to improve their own ability. Training can help teachers to improve their own quality, and improving professional competence is an important condition.

Training is an important way for higher education teachers to improve their ability, and it is also a forward-looking study for higher education teachers' development planning. Theoretical education can improve teachers' level, while educational practice can improve teachers' professional quality. In the process of social learning, teachers must have the ability of lifelong learning and continuous learning, and then, the knowledge acquired in the professional stage, the ability is limited, with the development of society, must be constantly improved, mastering new knowledge to match the teaching ability of teachers.

Teacher training provides powerful educational opportunities for teachers and is a powerful form of organized teaching. The country has reached a level of higher education designed to promote the professional development of teachers. To some extent, the steady stream of experience has also created many problems. Just as with classes, students must be educated, perceived, emotional, behavioral, etc. Teachers may face problems in growing up knowing exactly what kind of education and degree they need; otherwise, teaching activities would be blind and irrational. In fact, to some extent, blind education is a "waste of time" for education because educational training neither draws the teacher's attention nor encourages professional development. Effective training must be based on the developmental needs of teachers, which is the only way to encourage them to learn.

Therefore, there is a need to first theorize about teachers' professional development and to translate the results into practical dynamics so that teachers' training becomes an effective tool for their professional development [1]. In the past, teacher training often neglected the role of teachers, while professionals from higher education institutions and specialized educational institutions were the main and suppliers of educational resources. Therefore, the development of teachers' professional competence is a long-term solution, and training professional teachers is an important task, to require active thinking.

2. Literature Review and Theoretical Foundations

2.1. Literature Review of Relevant Foreign Research. Globally, the quality of teaching and training of teachers is highly valued in countries around the world, but since then, these trainings have not been gradually improved and developed, resulting in a small number of highly skilled teacher training institutions that fit the form and characteristics of education. This paper briefly outlines the high level of teaching training and responses in different countries, where a better system of higher education institutions has been established in the USA, Germany, and Australia, in order to be able to give us some suggestions for training. Highly qualified teachers in our country. The USA was relatively early in the training of higher education institutions and is now beginning to legitimize it. The path to the exhibition is to work with different community colleges as the main training platform for training centers [2].

Teaching training provides for different forms of legal restrictions, just like the training of teachers in higher education institutions in the USA. At the same time, the Billy Morell Act in vocational training and project cooperation, legal affairs of Carl Perkins in livelihood and promotion of technical education, provides detailed provisions [3]. In addition, the highest officials of the US higher education system teachers can choose their own materials and models of vocational and work content; then, it is necessary that the teaching methods and approaches of senior US teachers are more pragmatic than their work and able to use knowledge of higher education and hands-on in the real work [4].

While there is much discussion of higher education institutions in the USA, local authorities will also provide adequate training and communication. There are many more articles about the multifaceted and multilevel improvement of the teaching content of higher education institutions, etc.

At the same time, the German state governments provide the appropriate form of training for senior teachers according to the actual situation, according to the law: in the training process, senior teachers can choose the required form of training according to the actual situation. At the same time, Herman's goal for companies is to improve remote operating skills in cooperation with intercompanies and to improve the skills of Germans, as well as to establish regulatory system norms [5].

It is clear that Herman's preparation for teaching is very practical in terms of guidelines for teachers' work and skills, allowing teachers to train more knowledge and skills toward interdisciplinarity; at the same time, in the State Department's latest official statement on vocational education, knowledge and skills indicate the need for a demand-driven model of highly paid teacher [6] training.

Of course, the US government provides various guarantees for highly qualified teachers and others, and highly qualified teachers are free to choose their own materials and teaching methods, not only for training but also to increase the teaching activities of senior teachers [7].

2.2. Review of Domestic Literature. The authors used CiteSpace visual software to analyze polymer maps, which are keywords for advanced teachers' learning in the USA over the last decade [8]. The polymer map revealed that the key terms for five hotspots in the study of advanced teacher training over the last decade are advanced teacher, higher education institution, teacher, teacher, in-service training, and training. Teacher training has become a means of professional development for teachers. The national literature on highly skilled teacher training can provide basic recommendations for training strategies by examining the current state of research, education, and other issues. Existing research must also demonstrate this if there is a need to improve the effectiveness of teacher training. Research on learning needs and learning systems is a theoretical foundation for [9] learning.

2.2.1. Overview of Current Research on Higher Education Teacher Training. Our preparation of teachers has developed in a neglected process, but in the past year, the state has made great efforts for the progress and potential of teachers. In particular, in the study of nine institutions of higher learning including teachers in the northern provinces of Beijing, main results compared the role of the amount of support in the cost of teacher training in various types of higher education institutions; it turns out that private higher education spending is relatively small, but this part of the funds for teacher training, in addition, through the study found that the preparation [10] of teachers is mainly led by theory, while most of them in the form of expert reports Participation, while the survey found that education is led by sonar viscose; therefore, appropriate funding incentives are given for motivating teachers. And Luo Yao study analyzed the postseason national teacher training and found that the Chinese program is suitable for teacher training items and meets the needs of teacher education and teaching in China, but according to the professionalization training as it is oriented to all subjects, there is no further detail, which leads to the lack of professional training of high-end [11] teachers.

In the study of teacher development, Shay found that it seems that there are still problems in the training and drilling of teachers in China in various conditions; therefore, during the investigation, we also tried to find out the problems through the analysis of the situation of teacher training and provide some reference for proposing relevant countermeasures. In the process of investigation, a survey by song Jinju an showed that some higher education institutions such as higher education teacher training in Hubei, a single higher education institution, problems such as overdue theoretical training and lack of access to training, and vocational and pedagogical techniques do not meet the needs of current educational [12]development.

On the other hand, Wang Hua found the relative importance of the opportunities created by teacher training after investigating teacher training in three private vocational training institutions in Dalian. In addition to this, he had a negative attitude toward the professionalism and level of trainers in the third-party training institutions, while finding that in vocational teacher training only, the training content was more homogeneous and formalized, which seriously hindered the full integration and professionalization of vocational [13] teachers.

Chang ling's analysis of teacher training and evaluation systems yielded several influential factors that limit the effectiveness of eventual training, including an analysis of training needs, training programs, and content. The trained teachers' own comprehension, motivation to participate in the training, and change of mindset were also identified as factors affecting the final effectiveness of the training. In addition to this, Yuen In-young found that when categorizing the influencing factors that limit and affect teacher training, the greatest impact on teacher training was observed [14].

Environmental factors are the way to influence the level of teachers and trainers, followed by the level of personnel management of the organization and the planning of

training courses. In the study conducted on Ren Zhengfei, one divided into two factors influencing factors in the study of effectiveness, mainly involving external resources and conditions support, managers related to contributions over teacher training, as for the latter mainly involving the content of training, professional training teachers' own professional competence, and instructors' own professional competence [15].

In the course of the survey, there exists in today's professional training teachers and regional differences and uncertainties, ultimately from different regions of the foundation and professional level, will determine the training needs, through teacher training leading to a more elegant demand, and professional development in teacher training and [16] improvement.

2.2.2. Theoretical Basis. The professional development of professional teachers requires broader and deeper development of professional teachers themselves at all levels of knowledge, skills, and energy. The need for open education in the overall development process of professional teachers, as well as in the process of professional development, social progress, and human development, requires teachers to update and develop their knowledge and abilities, diversity, and needs in a timely manner, and the demand for such teacher training in higher education institutions is an effective way to supplement and update their knowledge and abilities [17]. The process of professional development of vocational teachers at multiple levels generates the need and demand for more training, which contributes to the formation of professional foundations of vocational teachers. It follows that professional development of teachers is a clearer and more rational throttle for teacher education.

The emphasis on the development of lifelong and sustainable development inherent in the professional development of teachers is right in these requirements, and this also requires teacher training within the development of teachers' careers, while education, unlike other fields, requires frequent updating of knowledge and requires continuity in the professional development of teachers, thus establishing a large amount of professional training to maintain and promote the continuity of professional development of teachers. In addition, the mobility of the working population and the complexity of the tasks of teacher education also require a certain degree of constant expansion in their areas of specialization, so that teachers as a continuous development of personnel in the learning process and ideas, but also for the development of planning life, the need to set up courses for teachers and is also a very important process of development of teachers' careers. Training is an important career in which the development process of education abroad, the need for teacher training to encourage their active participation in the process of professional development and improvement of teachers, while changing the qualifications of teachers to promote the continuing professional development of vocational teachers, the professional development of existing vocational teachers in China is of great significance and value.

Vocational training for vocational teachers can play an important role in the professional development process of vocational teachers. On the one hand, vocational teachers' training goals already determine, to some extent, the value of their training and the standards and outcomes that can ultimately be achieved through training. Thus, education is a strong support for the institution. The training of vocational training teachers will lead to the training and development of vocational training teachers, making them more professional.

The program promotes the professionalization of teachers through the implementation of a "Master Teacher" program, in which the best teachers play the role of "leading geese." At the same time, the selection of the relevant models and methods in the teacher training process ensures the successful achievement of the training objectives and further promotes the professionalization of teachers, making professional teacher training a catalyst for the professional development of higher vocational [18] teachers.

3. Survey on the Current Situation of Teacher Training in Higher Vocational Institutions

As shown in Figure 1, the technical roadmap of this paper is demonstrated.

3.1. Organization of Training Institutions and Training Forms. This paper also presents a bar chart of the organization of training institutions and training forms, as shown in Figure 2. From the organizations that organize training, the provincial education department and the schools where they are located are organized more often compared to the Ministry of Education and Enterprises. From the results of the survey on the form of training received by teachers in Figure 3, in most cases, the provincial education agencies and their institutions are organized jointly with the Ministry of Education and enterprises. The teachers who received training were mainly theoretical seminars, thematic conferences, or presentation competencies, while the actual in-depth training field practice in companies is less, which reflects that the latest training stays at the theoretical level and lacks practical and effective integration aspects and company operations, as shown in Figures 2 and 3.

3.2. Training Content. As can be seen from Figure 4, the contents of professional knowledge in the training of senior teachers in the city are, in descending order, "theoretical knowledge of the frontier of the profession," "knowledge related to vocational education," and "knowledge related to vocational psychology." The content of theoretical training of higher vocational education is mainly theoretical knowledge, and the proportion of technical knowledge and skills is low, as shown in Figure 4.

It can be found that professional frontier theoretical knowledge accounts for the highest percentage, which shows that professional frontier knowledge is the basis of other knowledge, and only when professional frontier knowledge is trained first, other steps can be carried out. The career-

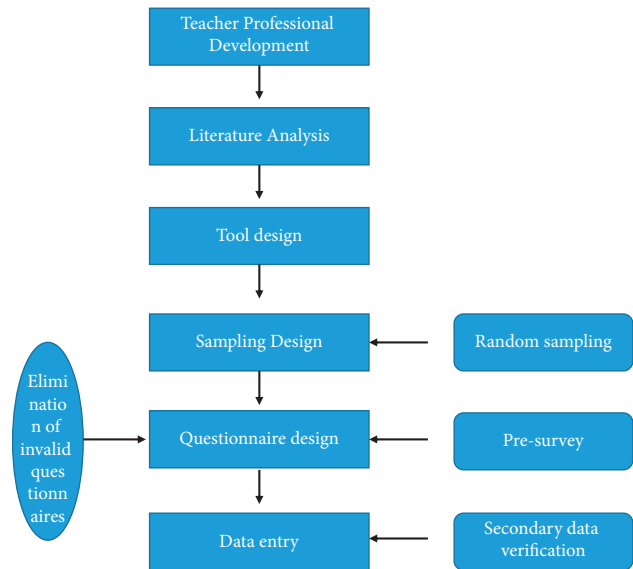


FIGURE 1: Technical roadmap of the survey questionnaire.

related knowledge and knowledge in psychology are also more important, which reflects the diversity of training.

In the twenty-first century, the state pays more and more attention to and develops the training of vocational teachers. It is currently in the development stage and does not have a perfect training content system. The training content is mainly developed at each training base according to the situation and the resources of available teaching staff. However, most of the units engaged in professional teacher training are universities and vocational training centers. Therefore, most of the training content is based on theoretical foundations. In addition, the main purpose of teacher training is not to improve theoretical knowledge of subjects and professions. The comparison in Figures 4–6 demonstrates philosophical and pedagogical virtues, research methods, and theoretical knowledge. In contrast, there is less in-depth learning and skills training in companies, which reflect the lack of combining theoretical and practical knowledge.

4. Problems and Difficulties in Current Training

The survey found that nearly more than 50% of teachers were dissatisfied or unsatisfied with the training. In contrast, 44.4% of teachers clearly indicated that the training was of little use to their own teaching or research. Based on these findings, the authors conducted an in-depth analysis and excavation of the problems that emerged during the training process and the dilemmas that teachers encountered during the training process. The results are as follows: the questionnaire classified the potential problems related to the training content as follows—courses, giving teachers of professional training a variety of options. The results of the statistical analysis are shown in Figure 7.

According to Figure 7, 61.7% believe that the teacher training discussion cases do not have a proper orientation and 58.9% believe that it is impractical to update the content

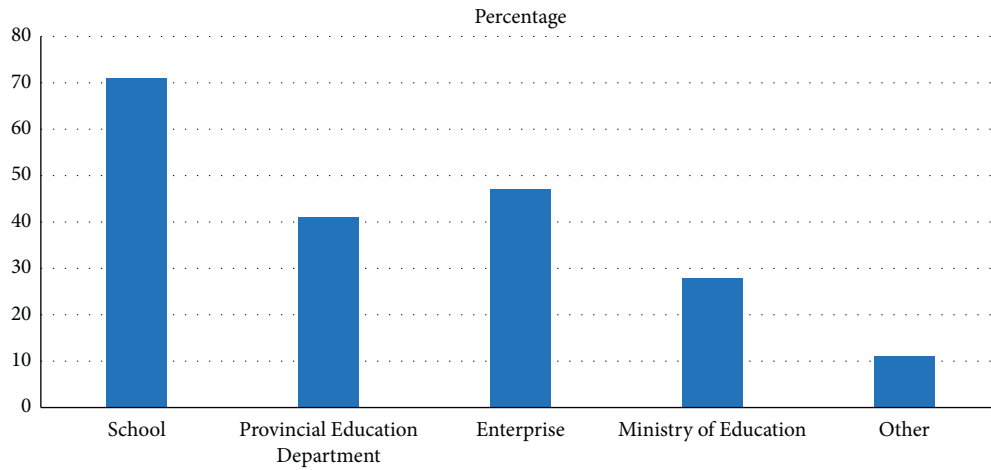


FIGURE 2: Organization of in-service training teachers used to attend.

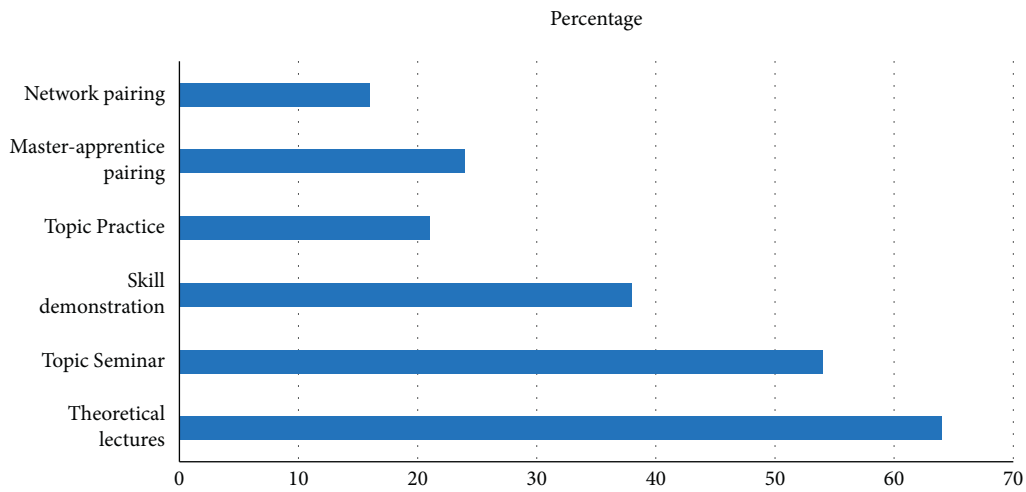


FIGURE 3: Form of in-service training teachers used to attend.

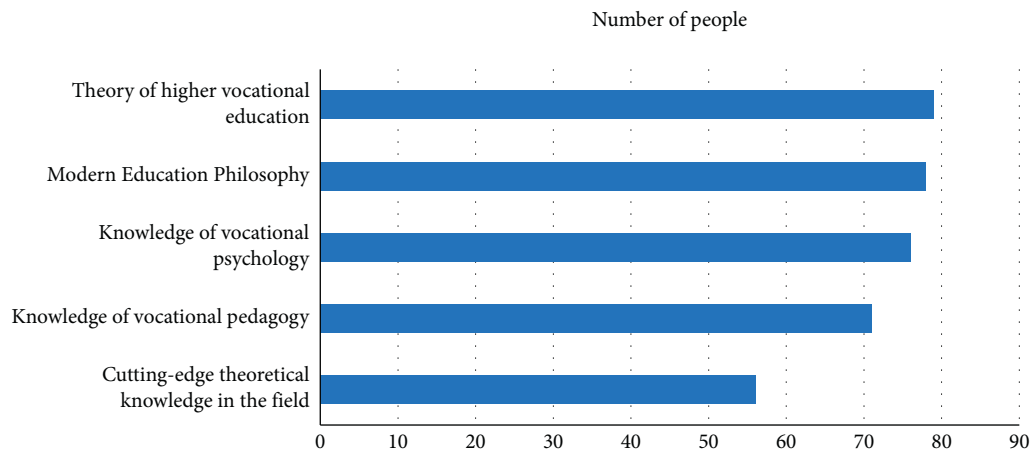


FIGURE 4: The content training of professional knowledge teachers ever attended.

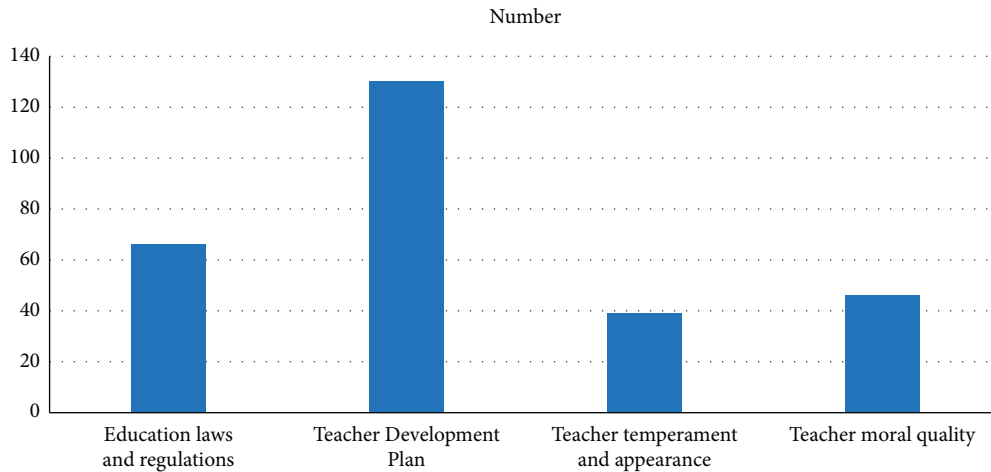


FIGURE 5: Teachers' participation in training on professional philosophy and teacher ethics.

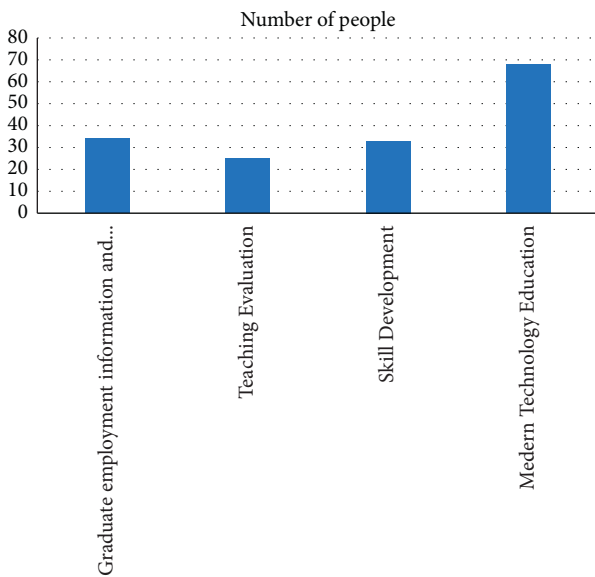


FIGURE 6: Teachers' participation in training on professional teaching knowledge.

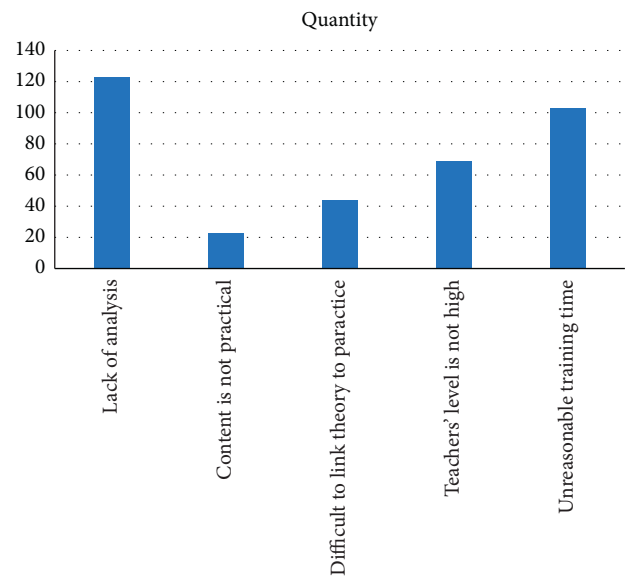


FIGURE 7: Problems with training contents.

and report cutting-edge knowledge and technical training in a timely manner. In addition, 48.1% of the vocational training teachers chose to believe that the training focused too much on theorizing about professional knowledge and not on professional knowledge.

In practice, 46.7% of teachers believe that the low level of teacher training reduces the effectiveness of training, and 23.4% of the teachers think that the training time is unreasonable.

The lack of correct orientation of teacher training discussion cases is the main problem, because without correct orientation one cannot proceed to the next teaching task. Timely updating of content and reporting of cutting-edge knowledge and impracticality of technical training are also more problems, which reflect that timeliness of content and pragmatism of technical training are also very important aspects. Addressing these issues properly is the basis for taking the next step. In addition, the low level of teacher

training will reduce the effectiveness of training and the unreasonable training time is also a problem that needs to be improved.

As shown in Figure 8, 60.7% of senior teachers choose the time that is not allowed, 54.2% choose the training effect is not good, 44.4% choose the cost is too high, 39.7% choose the training place is not suitable, and 11.7% choose others.

5. Problems and Analysis

Most teachers in higher vocational training institutions are still very willing to attend various training courses subjectively, even if they take on heavier teaching tasks themselves. At the same time, it is inferred that most of them want training to improve their business competence in a real and effective way, to understand and keep up with the latest knowledge and advancement, and therefore, to improve the quality of education and education. However, the questionnaires and interviews have also exposed many of the

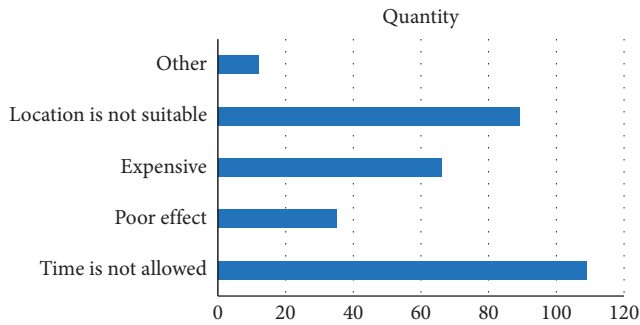


FIGURE 8: Difficulties in training.

challenges currently faced, including the disconnect between training content and reality, overly simplistic training methods that result in some apparently too conservative, and traditional training methods that meet the dedication of teachers all work and heavy family commitments. Based on the data analyzed in the previous chapter, this chapter provides a detailed analysis of the dilemmas facing teacher education and an in-depth analysis of their causes, laying a theoretical foundation for the construction of training pathways.

5.1. Lack of Implementation of Special Funding for Training and Insufficient Targeting. It is well known that Chinese higher education is mainly financed by government education expenditure, individual or donor contributions to private schools, tuition fees and social donations, and the same is true for local higher vocational education institutions. Data on the funding of general university education show that undergraduate and graduate professional institutions do not differ significantly in terms of numbers, but differ significantly in terms of educational revenue, especially in terms of state funding for education. To some extent, vocational training institutions are far less important and financially invested than undergraduate institutions.

First, it is necessary to ensure the proper and orderly functioning of all school programs and to provide adequate funding. On the other hand, the use of funds for the organization of schools, on the one hand, for all aspects of teaching, education, and scientific research, and on the other hand, must support the salaries, training, and regular expenses of teachers. Therefore, only an appropriate financial contribution can bring the school enterprise into a virtuous circle. However, where schools are underfunded, the actual funds allocated to teacher training are very small and insufficient, except for the main teaching and research tasks. On the other hand, because of the tight training schools, the preference of teachers to select teachers, etc., many teachers are very subjective apprentices, but the reality is too much training or strong competition for opportunities for in-service training of teachers is reduced. To some extent, it may also limit or affect the general teaching and research and its long-term development.

The training system is built in a way that deviates from the training objectives and is somewhat blind. A training system is a guiding document that defines a rational and

systematic organization of the three elements of training (teachers, students, and materials) to achieve specific training goals. The fundamental goal of building vocational schoolteacher training is to implement training in a lasting and effective way, maximizing its effectiveness and standardization, and vocational school training becomes a routine practice including all teachers, becoming a tool necessary for a progressive teacher karma competition. The establishment of a training system can help improve the quality of education by improving the professional skills training of teachers, thus reducing wasteful investments, and enabling better integration of training objectives with strategic training vocational training centers.

By reviewing relevant information, analyzing the results of questionnaires and interviews, it can be found that there are still some problems in the construction of training system for teachers in the city's higher education institutions, mainly from four aspects: training content, training methods, training implementation results, and training evaluation.

5.2. The Training Content Deviates from the Training Demand and There Is a Disconnection with Practical Teaching. As a special type of higher education, higher vocational education has its unique features. Its characteristics determine that professional teacher should not only have high professional theoretical level, but also have more competent and standardized professional technical operation ability. For teachers of higher vocational training institutions, the formation of training content is the most important part of their interest and the basis of effective training. Thus, professional, scientific training content and globalization and knowledge not only help to increase the level of cutting-edge knowledge and skills of teachers training and improve their professionalism but also help teachers, in school education, to get effective education of people to train highly qualified professionals, then required for economic and social development.

It is clear from the questionnaire that the current satisfaction of teachers in vocational training schools is higher than the national average. A significant percentage of teachers reflects that the training content deviates significantly from their own needs. Ignoring the differences in the needs of different professions, different ages and ages of teachers, and different genders, also the actual needs of local education, economy, industrial structure, development of industry enterprises, and full integration of planning and design are not enough. The most successful professional teachers are now teaching competencies, professional development planning, subject research methods, curriculum implementation, and teaching practices. In the case of vocational teachers, what do you think is the most urgent need for training now?

What is evident is that the content of in-service training for those currently being trained in teaching does not meet the actual needs of teachers. At the same time, the training is mainly vocational theoretical content. Mainly, it is not fully adapted to the teaching and management needs of the teachers

involved, disconnected from front-line teachers in the classroom, not close to the reality, close to teachers and students, close to the classroom, and the practical role is not obvious.

Too much media, easy to be formal, and training questionnaire results show that most forms of training are currently taken theories on the subject, most existing forms of training, consisting of a low proportion of other media (40%), that is, in the traditional primary way, training workshops. However, the teacher believes that three effective training methods are thematic seminars, skills training, and on-the-job training. The rate of selection in the subject of seminars reached 62.1%, and the company deep learning option reached 59.3%. Thus, most teachers recognize that for both field practice and company deep learning are proven training methods. Vocational training centers do not consider the characteristics of professional teachers and use the traditional method of training lectures and series of courses, which are boring, and they just talk. It is almost difficult to have the opportunity to apply empirical theories or results to the training practice.

Teachers are less motivated to learn from boring and less involved in learning, even if only slightly results will be available. Such training not only results in a waste of personnel and property, but also greatly reduces effectiveness.

5.3. Little Training Effect and Large Deviation from Training Expectations. In interviews and questionnaires, we found that most of the current training tends to be conducted in-house due to economic efficiency factors. In the case of teacher training, it is an attractive time to train teachers. However, the quality of the training is questioned due to the lack of effective and rigorous supervision in the practical training. It does not follow the initially announced training objectives, the content is too old, the training tools are too homogeneous, and the low motivation of teachers to train leads to ineffective training.

In training applications, lectures are usually the most common type of trainer used in teacher training. While most trainers use teaching cases or aids to help teachers learn and develop their skills, most trainers have their own teaching methods. Most of the teaching cases or equipment used by trainers in training sessions is older equipment, some of the technology is outdated, and industry companies that are not currently in use in the production area represent more new technology equipment. It does not help teachers to understand the latest theoretical achievements and the latest technologies in the development of the industry, resulting in original teacher training on the formation of their own interest in the content and motivation to learn has very low expectations.

Training evaluation methods are not reasonable, and training evaluation norms are not adequate. Evaluation is an important factor in teachers' participation in training. Scientific and reasonable evaluation mechanisms often improve the quality and efficiency of training vocational training teachers in a timely manner smoothly in the right direction.

The survey shows that 38.6% of vocational teachers believe that the current training evaluation is inadequate.

The average satisfaction of teachers with the evaluation method of formative evaluation is only 2.93. The teachers surveyed said theory and attendance exams are still the most common methods of assessment in the courses attended. The examinations mainly focus on the final evaluation, and to a certain extent, the final evaluation of teachers' learning process is neglected.

In recent years, the actual work and deepening of vocational schoolteachers in China have really pushed the construction and development of the "dual training teacher template" in China to a large extent, also improving the professional teachers in vocational schools, the template to address the serious shortcomings of the teacher vocational training system and achieve some results [19]. The internship provides an excellent learning platform for the continuous training of teachers in vocational training centers. In-house teacher training is a routine and difficult task, more problematic and less efficient than training in vocational training institutions. Despite continuous attempts to address this issue at the national level, teacher practice, from institutional establishment to practical application in companies, has not yet developed a durable and exemplary mechanism. There is a problem with the value of adult vocational training and professional training institutions, teachers, and businesses in social enterprises. Different stakeholders have different interests in the multisectoral process of developing professional teacher education.

5.4. Enterprise Training Efforts Still Fall Short of Preconceptions and School-Enterprise Cooperation Is Insufficient. On the one hand, the actual needs of professional training teachers to develop and realize their own values, as well as their own subjective needs and business practices, are more important. Of the 214 teachers surveyed, 49.1% had not worked in a company. This percentage also clearly shows that almost half of the teachers in vocational schools currently do not understand business reality and have difficulties in teaching it to their students. It is due to the lack of most teachers' weak practical skills, companies better adapted to vocational education for teachers' professional requirements, most teachers or business practices, is the need for opportunities to meet the realities of company production and practice their practical skills in response to recent months.

According to the survey, more than half (59.3%) of teachers chose "on-the-job in-depth training" when asked "what is the most desirable form of training." The teachers of regional vocational training have a positive attitude toward corporate practice, with a strong demand and a relatively strong "practical self."

On the other hand, the problem of creating a school environment by integrating entrepreneurial elements into the school culture and educational environment is almost nonexistent. Even though national and local authorities have strongly favored the model, due to many obstacles, vocational universities have not yet developed close school-industry cooperation for companies that choose not to care about competing for their own careers, and in the corporate

survey, only about half (55.6%) chose the most important option in terms of training to help them develop their own careers. 6%) chose the most useful or useless option. This percentage also suggests that the content of training is not sufficiently targeted, and that training should cover the entire range of professions, adding as many of the most productive companies as possible, rather than being limited to the most educational ones.

Finally, companies seek profits, and those seeking to maximize profits find it difficult to reap effective rewards from school-enterprise partnerships. From the company's point of view, it is unprofitable and reluctant to allow teachers to go to companies that provide them not only with jobs but also with mentors and sometimes with accommodation. On the other hand, higher vocational teachers, although highly specialized in theory, are relatively weak in practice, which may affect the normal production of the company to some extent and bring burden to the company.

6. Conclusion

Training of teachers is a complex task done with teaching quality higher vocational training institutions, improving professional teachers, especially with the high quality of training and level of socioeconomic development required. Therefore, it must integrate and rationalize the use of resources to jointly promote the professional development of vet teachers. The purpose of this paper is to analyze the current situation and problems of vocational training.

Increasing funding for training and enhancing the management of teachers' training fees: Funding is an important factor limiting the task of training, and ensuring adequate funding is a strong support for vocational teachers. Increase the investment in vocational teacher training funds, improve the management system of special funds, and establish a lasting guaranteed mechanism for training funds. The ultimate goal of vocational schoolteacher training is to improve the quality of teachers and promote the development of vocational schools. Therefore, establishing a funding mechanism for teacher education that is based on financial contributions and combines social contributions with individual contributions is an effective approach. With adequate funding for training, vocational teachers can improve their qualifications while promoting the development of vocational training institutions [20].

Education and teacher training should be planned in a more rationally allocated and funded provision of citywide education and training, effectively improving the efficient use of financial resources, promoting the construction of educational templates, and improving the overall educational standards of teachers. Teacher training should be provided at all levels. Education departments at all levels should change how funds are allocated for teacher training, and are sorted into two parts: one for all teachers in schools and the other for training teachers professionally primarily by schools; schools will monitor and manage teachers' professional training through statistical credits, ensuring that funds are allocated and not used for other purposes. As a direct result, training institutions can accelerate and

improve their own business level and operational capacity to attract more trainees to their training; as far as teachers are concerned, they have greater autonomy in choosing their training, improving their self-learning capacity and thus their relevance and effectiveness.

Strengthen the participation of enterprises in the development of training standards and broaden the channels for teacher training. The professional development of vocational teachers is one of the top priorities. Under the premise that the interests and goals of enterprises and vocational training institutions are the same, the combination of "industry and university" should be one of the important channels to improve the "dual quality" of vocational training teachers. The company is mainly responsible for the practical base of training tasks of the national faculty of professional universities, where teachers regularly provide companies with engineering and technical practice, professional skills training, personnel exchange and part-time jobs in partner institutions, cooperation in production, education, research, and development.

According to the survey, only a few vocational teachers have work experience before entering vocational schools, and most of them graduated directly from general universities. Therefore, the in-service training of these teachers is an essential part of the process.

First, vocational training teachers need to pay attention to two key aspects when they enter enterprises to acquire vocational skills. They should actively participate in the actual work of enterprises, be familiar with the new processes, technologies, and methods of modern enterprises, avoid scientific tendencies, and introduce what they have learned into the teaching process. Secondly, it is necessary to strengthen the cooperation between schools and enterprises, so that teachers enter the front-line work in workshops and enterprises to learn new processes, technologies, and methods in depth, and so that teachers can incorporate theory and practice into their educational activities. For different majors and different types of teachers, the time is reasonably arranged so that teachers can have a full range of in-depth learning and practice in the company. Third, teachers must participate in production practices in companies to improve their professional skills. Provide more opportunities for teachers to directly participate in the product development, and corporate culture building and workshop management of enterprises. Establish a system of evaluation and assessment of corporate teacher practice that distinguishes between professional principals, basic teachers, and teachers' general internship hours and salaries in companies. Incentivize teachers to conduct training in companies. Fourth, teachers are encouraged to participate in production practices in enterprises and enterprise technicians are encouraged to teach part-time in schools. Financial subsidies are given to teachers who participate in enterprise practice and to technicians who teach in schools to strengthen school-enterprise cooperation and establish a win-win mechanism of cooperation between schools and enterprises.

Do a good analysis of training needs and solidify the foundation of teacher training. The first link in the design of the entire training system is the training needs analysis.

Within the curriculum to establish training objectives competency design, teaching methods selection, training effectiveness assessment and other links to provide the foundation. Conducting on-site training to achieve good results, it is critical to conduct a needs analysis before training. Training needs analysis schools fully understand the professional development needs of schoolteachers and scientifically develop school human resource development plans. Training needs analysis must be conducted from four perspectives: social needs, organizational needs, job needs, and personnel needs. Determining the training needs of teachers first requires an analysis of the specific reasons for the needs. The reasons for the arising training needs may be as follows: analyzing the application of new technologies, job performance, and high-performance standards.

Data Availability

The labeled dataset used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest

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