

Research on the Development Path of Professional Teachers from the Perspective of Undergraduate Vocational Education

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Abstract: In view of the opportunities and challenges brought by vocational education at the undergraduate level to professional teachers in higher vocational schools, combined with the current situation of teacher development in our school, we will explore the development path of professional teachers from the perspective of front-line teachers. Firstly, it analyses the hierarchical structure of professional teacher development, and analyses the stages that are easier to break through in the hierarchical structure. Then, it establishes the triggering system for professional teacher development, and demonstrates the necessity of triggering the internal driving force of teacher development from the perspective of classroom, emotion and environment. Finally, a professional teacher development accumulation matrix is established by taking engineering measurement technology professional teachers as an example, in order to learn from and inspire other vocational teachers in the period of rapid development, and keep in mind the original intention and mission together.

Keywords: Undergraduate Level; Vocational Education; Professional Teachers; Teacher Development.

1. Current Situation and Background Analysis

In the journal database of China National Knowledge Infrastructure (CNKI) and combined with the Baidu academic resource search platform, the keywords "undergraduate level vocational education", "vocational undergraduate", and "vocational undergraduate" were searched. The literature survey summary is shown in Table 1.

Table 1. Document retrieval summary

Search keywords	Search column	Total number of documents	Earliest publication date of the paper	Centralized distribution years
Undergraduate level vocational education	Title	306	2002	2019-2022
Vocational undergraduate	Title	490	1999	2019-2022
Vocational undergraduate education	Title	454	2002	2017-2022

It is evident that undergraduate level vocational education has become a hot topic in the field of vocational education research, and it has been concentrated in the past three years. This is closely related to the promulgation of relevant policy documents, especially in the 2019 State Council issued the "National Vocational Education Reform Implementation Plan", which proposed the "pilot program for undergraduate level vocational education" In 2021, the Ministry of Education successively issued documents such as the "Management Measures for the Establishment of Undergraduate Level Vocational Education Majors (Trial)" and the "Standards for the Establishment of Undergraduate Level Vocational Schools (Trial)", which further accelerated

the implementation of undergraduate level vocational education.

In the above literature, the keywords "teacher development", "teacher team construction", and "teacher team development" were used for full-text search. The searched literature was analyzed and the research results of several representative scholars were extracted. When analyzing the construction of undergraduate education faculty, Zhong Bin proposed four appropriate paths: firstly, cultivating morality and cultivating talents: strengthening the research and formulation of teacher professionalization standards with the "undergraduate" standard; Secondly, mechanism construction: improving the professional development mechanism guided by motivating teachers' growth; Thirdly, ability cultivation: building a hierarchical and classified training system centered on the improvement of "dual teacher" abilities; The fourth is the integration of industry and education: adhering to a multi form teacher training strategy based on the principle of integration of industry and education. Zhang Li [2] also proposed four optimization paths for undergraduate level vocational education pilot colleges. Firstly, optimize the system and mechanism to fully stimulate the vitality of teachers, including scientifically setting up positions, constructing a diversified evaluation system, reforming performance distribution, and reforming secondary management; The second is to increase the introduction of high-level talents and create a teaching staff with sufficient quantity and reasonable structure; Thirdly, strengthen teacher training and create "dual teacher and dual ability" teachers; The fourth is to deepen the integration of industry and education, and enhance teachers' technological innovation and service capabilities. Jia Junli [3] proposed four improvement strategies for teacher development in the context of undergraduate vocational education: firstly, updating the training mode to enhance teachers' professional practical abilities; Secondly, establish

specialized agencies to promote the systematization of teacher development services; The third is to involve teachers in curriculum reform, ensuring their sense of belonging and mission; The fourth is to build a characteristic evaluation system for higher vocational education and maintain the academic ecological development of teachers. There are also many scholars who contribute ideas and suggestions for teacher development in the context of undergraduate vocational education. [4-10]

The development of teachers seems to be a difficult task to implement or drive others to implement, and it is true to explore these issues from the perspective of managers. None of the above literature considers and explores this issue from the perspective of frontline teachers themselves, nor does it consider the internal combustion and driving force of frontline teacher development. It seems that from the perspective of managers, teachers are passively developed through reform of systems, management, training, and other paths. Just like the learning and growth of your own children, when you urge supervision, it often backfires. Immediately ask the vocational teachers and colleagues around you, 'Do you have confidence in cultivating undergraduate level vocational education students?' Perhaps the other party is confused, unsure, or even refuses, who will consider how their inner motivation ignites.

Teacher professional development is a teacher centered professional development that emphasizes the process of individual teachers' professional knowledge, skills, autonomy, value, and literacy gradually reaching the standards of teacher professionals from low to high. It also emphasizes the self-persistence of teachers in achieving professional confidence while gaining professional self-esteem and teaching and educating values. [11] Cultivating students is like pouring water. If you want to pour a glass of water for students, you must fill a bucket of water yourself.

The document "Teaching Career and Teacher Education in the Era of Lifelong learning" published by the World OECD points out that "three must" - must first become a Lifelong learning; Must be synchronized with knowledge, tools, and

social development; We must continuously promote our professional development. A series of documents, from the perspective of national strategy, have macro planned the reform of higher vocational education and teaching in China, and top-level designed the strategic layout, policy guidance, and reform measures, marking that the reform of higher vocational education and teaching in China is facing new tasks and challenges, and also creating a new situation for higher vocational education and teaching work. Only with high-quality teachers can there be high-quality education. From the state, to schools, and to individuals, the original aspiration and mission of educators can only be spontaneously ignited by everyone, in order to create a favorable situation where good teachers constantly emerge. As a frontline vocational teacher at the bottom level, from the perspective of the teacher themselves, explore the path of professional teacher development in the perspective of undergraduate vocational education, in order to awaken the original intention and mission of oneself and others, love education work at the deepest level, and wholeheartedly and passionately invest in the education industry. By closely focusing on the main body of teachers in educational work and conducting corresponding teaching explorations, top-level policy requirements can also be effectively implemented.

Therefore, based on the above current situation and background, how should professional teachers in vocational colleges develop? How can they think and study the personal professional development path from the perspective of frontline teachers themselves in undergraduate vocational education? How to touch the internal drive of learning and development, and develop a Lifelong learning plan? How to confidently welcome the teaching of vocational education students at the undergraduate level, and deepen and sublimate it together? This article attempts to sort out and study these issues, exploring different paths and directions.

2. Exploring the Development Path of Professional Teachers

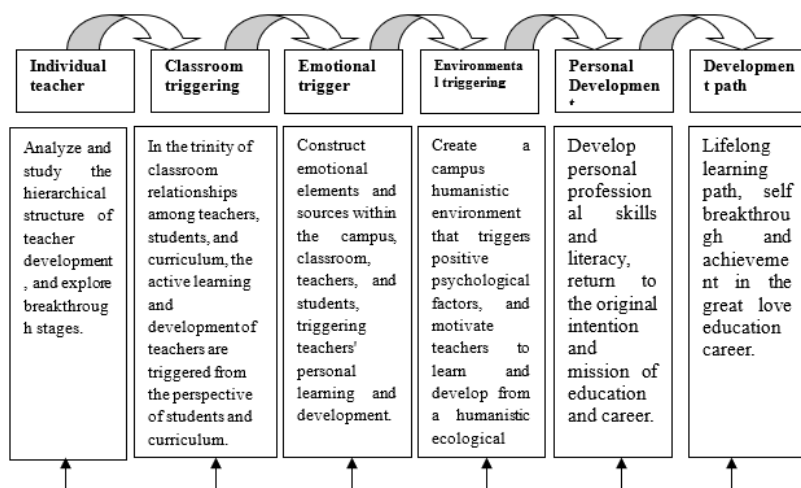


Figure 1. Analysis of the Development Path of Professional Teachers

Not all the paths we have taken are worth learning from, but only the path of progress is worth looking back and summarizing. From the different levels of the country, school, industry, teaching and research office, to individual teachers, the exploration of teacher development is involved, but ultimately it will all fall into the development of individual teachers. The internal drive of personal development of

teachers has a stronger driving force than external factors. Triggering from the classroom aspects that are closely related to teachers, as well as the often-overlooked emotional aspects, as well as the campus humanistic environment, professional teachers can enhance their professional skills and literacy in their personal industry, ignite and maintain the original intention and mission of education and profession. This path is a path of development and progress. Ultimately, we will

achieve a positive educational situation where good teachers continue to emerge. The specific exploration path is shown in Figure 1.

3. Analysis of the Hierarchical Structure of Teacher Development

Teacher development includes a vertical level from individual teachers to collective teachers, and then to professional guidance. Individual teachers are the main body of development and the most easily broken through primary level. At this level, the main focus is on the relationship between teachers and individuals, and dialogue between teachers and individuals is carried out. The breakthrough here is to awaken teachers' dissatisfaction with their teaching



Figure 2. Hierarchy of Teacher Development

From the hierarchical structure of teacher development, it can be clearly seen that the "individual collective individual" spark can ignite an unstoppable trend, and the source is the individual trigger. The spark of thought may be colliding, but ultimately it is the individual itself that bursts out. The various circles of society have established guarantees and paved the way for the personal development of teachers from top to bottom, and the key lies in the germination and action of individual teachers' learning and growth rooted in their hearts. The times may make every teacher realize that learning and then learning, but with the explosion of knowledge and the emergence of industry elites, what kind of growth path is the path to development.

4. Trigger System for Teacher Development

4.1. Triggering from a Classroom Perspective

As shown in Figure 3, in the trinity relationship of the classroom, the main components include teachers, students, and curriculum. The development of teachers can drive the development of students and curriculum, and in turn, the development of students and curriculum can also trigger the development of teachers. In the process of repairing talent cultivation plans, professional courses have gradually reduced class hours. At the same time, the theoretical foundation knowledge of ordinary vocational students in the middle school stage is weak. On the other hand, in the wave of education and teaching reform, the assessment methods of courses are diversified. Teachers can formulate their own assessment plans. In teaching, teachers constantly reduce teaching content due to the total class hours of the course and students' learning ability, what teachers are capable of

practices (i.e., a sense of crisis); The collective teacher is the process goal of development, and it is also the intermediate level of teacher development that penetrates into the teacher community. At this level, the main focus is on interpersonal relationships and dialogue between teachers and peers. When the primary level is broken, this level of effect will be achieved; Professional leadership is the ultimate goal of development, and it is also the highest level after the collective development of teachers highlights differences. At this level, the main focus is on the relationship between people and "books", and there is a dialogue between theory and practice. At the intermediate level, only after the development of the group can they become industry leading experts. The hierarchical structure of teacher development is shown in Figure 2.

teaching and what they are good at teaching are often the first few chapters of the textbook, while the later chapters, which are more closely related to the profession and have greater significance, are never covered. Only by triggering the development of teachers from the perspective of students and curriculum, and ultimately achieving the common development of the three, can the mission of classroom revolution be truly completed.

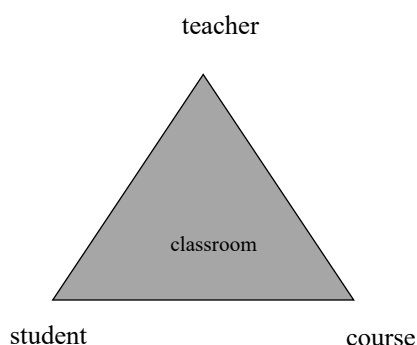


Figure 3. The Trinity Relationship of Classroom

With the reform of vocational education at the national level, society is gradually changing its attitude towards vocational education and vocational education students. The quality of students entering vocational colleges will gradually improve, and teachers will still take courses from many years ago and their teaching abilities and skills to the podium. They can no longer withstand the challenges of offline students. From the perspective of student development, what triggers the Trinity relationship will be continuous curriculum reform and teacher innovation. This is not only a challenge, but also an opportunity. Teachers silently realize that after these triggers, they will awaken their inner self learning and innovation, ultimately achieving complementarity in the

Trinity.

4.2. Triggering from an Emotional Perspective

Pay attention to the different levels of self, id, and superego needs of professional teachers, and explore the emotional elements between the campus, classroom, teachers, and students. Teachers, as adults, should be seen as iron walls standing on the podium to preach and dispel doubts. As a member of the teacher-student community, they are also a group that needs to be motivated and inspired with emotions, rather than cold documents and systems. The personal development of teachers is more effective due to internal factors than external factors. With the development of the times, teachers themselves realize that small buckets need to be replaced by large buckets, and realize the self-fulfilling growth after the crisis. Only in this way can they educate undergraduate vocational education students and even higher-level students well, transitioning from a "bucket of water" to a "constantly flowing river".

How to trigger the original intention and mission of professional teacher education from an emotional perspective, and do a good job in conscience education, rather than supporting the family. A class on the podium can be passionate and sloppy, and a class filled with emotions accumulates into one semester and then another class of students, shaping the lifelong achievements of a class of students. Ten minutes on the stage and ten years off the stage. Every class on the stage needs to keep pace with the times and Lifelong learning. Building a community with a shared future for teachers and students, where parents are also teachers, teachers are also parents, descendants are also students, and students are also descendants. The parents of students may be industry elites, planting and breeding farmers, or ordinary workers. Our own children's food, clothing, housing, transportation, and learning are inseparable from each other's contributions. In a harmonious and co built society, education cannot be neglected. Educating others' children well, our own children will also receive good education from others.

4.3. Triggering from an Environmental Perspective

Just like employees in enterprises, teachers also have a relationship between people and the campus environment in schools. The ecological environment affects people to a certain extent, and the campus environment also affects teachers. In addition to material natural ecological effects, there are also spiritual humanistic ecological effects. The vibrant and thriving campus environment triggers positive psychological factors for teachers, while the flat and lifeless campus environment triggers negative psychological factors for teachers, leading to fatigue in their work. How to cleverly construct a humanistic campus environment that triggers positive psychological factors can be approached from the perspectives of culture, copywriting, and quotations.

How to create a great love campus for teaching and Lifelong learning from the environment. The school motto of "kindness, erudition, practice, and innovation" is common in many universities, but may be too common and pay less attention. Some thoughtful words often stimulate teachers' passion throughout the day. Careful design of copywriting, quotations, and other materials on campuses, classrooms, offices, and conference rooms not only creates an atmosphere of educational enthusiasm for teachers, but also embeds their own passion beyond yesterday. Build campus cultural

quotations. For example, a good lesson you have taught is a lifelong wake-up call for us, there is no great love when we go out of campus, and I am willing to put down my mobile phone when I attend your class. This will encourage and maintain the enthusiasm and enthusiasm of professional teachers from the humanistic environment.

5. Teacher Development Accumulation Matrix

The development path of professional teachers is not a limited path with a starting and ending point, but an infinite path without an ending point. Lifelong learning is not only the mission of contemporary adults, but also the mission of teachers. Different disciplinary backgrounds have different accumulation matrices. The first level discipline is vocational teachers in surveying and mapping science and technology, and their insights from their own teaching accumulation are not fully translated into teaching achievements. For example, literature [12] [13] [14] is a summary and evolution of the author's own teaching accumulation and development, and there are also excellent teachers who have rich teaching experience but have not been translated into specific achievements. The direction of the teacher development accumulation matrix provided here, as shown in Figure 4, is not unique, but can serve as a target.

Indeed, the curriculum is closely related to professional teachers. And professional courses also include professional basic courses and professional core courses. Mastering a course may not be an accumulation of ten years, as the industry has developed over the past decade and beyond, and the precise presentation of this course also needs to keep up with the times. At present, the lack of professional teachers in some vocational colleges has led to a professional teacher teaching four or five or even more professional courses, and the effectiveness can be imagined. During the limited working time for the growth and development of professional teachers, the key indicators of learning and development can be referred to as shown in Figure 4.

Under the first level discipline category of surveying and mapping science and technology, with the development of schools and professions, starting from the accumulation of engineering surveying technology professional teachers, gradually developing into professional teachers of similar majors, rather than becoming professional teachers of multiple majors in one go just because one's own profession belongs to the discipline category. In the teaching of closely related courses, it is important to excel in the "Two Ones" and "Two Education and Two Abilities", that is, to master a professional basic course, a professional core course, as well as related course resources and platform construction, and to integrate ideological and political education, mental health education, job abilities, and craftsman skills into the courses. In the development of all-round literacy, completing the "Four Ones" and "Four Times", selecting and adhering to a teaching reform direction and scientific research field in teaching and research, and publishing a high-quality teaching reform paper and a scientific research paper, rather than accumulating in quantity. At the same time, in order to maintain professional literacy and keep up with the times, regular industry research, job placement learning, and job placement work are carried out, and reports and lectures accumulated to a certain extent in the industry.

The "Four Harmonies" of Literacy	Teaching and research "Four Ones"	Professional discipline	Course "Two Ones"	Course "Two educations and two abilities"
Industry Report Lecture	A high-quality scientific paper	Surveying and Mapping Science and	Building open courses	Cultivate job craftsman skills
Timely enterprise job placement work	A consistent research direction	Teacher of Cadastral Surveying and	Building course resources	Developing job skills
On-the-job learning in contemporary	A high-quality educational reform paper	Surveying and Mapping Geographic	Proficient in a professional core course	Integrating mental health education
Conduct research and exchange with	A significant educational reform	Teacher of Engineering Measurement	Proficient in a professional foundation	Integrating ideological and political

Figure 4. Teacher Development Accumulation Matrix

6. Conclusion

From the perspective of front-line teachers, this paper explores the development path of professional teachers in the perspective of vocational education at the undergraduate level, explores the original intention and mission of the education profession of professional teachers from the emotional perspective, touches and re touches from the heart, touches every professional teacher's desire to go out of the inner volume of professional titles, elevates the personal pattern, formulates a Lifelong learning plan, builds a development accumulation matrix, and starts with a good presentation of a professional course Divide into exciting points; Build a campus atmosphere with a strong humanistic atmosphere from the perspective of the environment, erect quotes that inspire and inspire teachers from the perspective of students, and build a loving environment and campus; Build a community of shared future for teachers and students, and work effortlessly and efficiently in a loving environment.

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