The Current Situation of Teacher Education Development in Germany and its Implications for China

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Abstract: Teacher education is one of the significant research topics in the field of education. Germany boasts a well-established system for teacher characterized education. by rigorous pre-service training, in-service training, and standardized national examinations. In recent years, Germany has enacted and revised the national "Teacher Education Standards" to further regulate the development of teachers, professional ensuring high-quality teacher training in the country. Through an analysis of Germany's teacher education practices, there are certain implications for China in areas such as the enrollment of normal university students, teacher qualification admission criteria, teacher cultivation, curriculum system construction, and the improvement of teachers' remuneration.

Keywords: Teacher Education; Pre-Service Training; In-Service Training; Teacher Qualification Certification

1. Introduction

Germany is a federal country with a decentralized system, where teacher education is generally framed by the federal government, while state governments handle teacher training, recruitment, and further education based on their own needs. Overall, teacher education in Germany started early and has a well-developed system, making significant contributions to ensuring the quality of education in the country.

2. Training Model for Primary and Secondary School Teachers in Germany

The training of primary and secondary school teachers in Germany is primarily conducted in universities and includes two processes: pre-service training and in-service training.

2.1 Pre-Service Training

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Pre-service teacher training in Germany typically lasts for 3-4 years and is mainly conducted in universities. It consists of two stages: theoretical learning and practical training.

Theoretical learning usually spans 7-9 semesters. The main courses students take include three aspects: firstly, educational science courses, accounting for about 25% of the total curriculum, focusing on education and psychology; secondly, professional subject courses, referring to knowledge and related pedagogy of two or more teaching subjects; and thirdly, practical teaching courses [1]. After completing the first stage of learning, students need to take the first state examination.

The second stage is the practical training phase. After passing the first state examination, eligible candidates can apply to enter this stage. The goal of this phase is to enable students to apply the theoretical knowledge learned in university to practice. The duration of practical training varies from 18 to 24 months [2]. To ensure better learning and guidance for trainees, each student is assigned a dedicated mentor who plays a guiding and supervisory role, contributing to the students' successful completion of the second state examination and practical training activities. The practical training mainly includes two aspects: firstly, undertaking certain teaching tasks, where trainees initially teach 12 classes per week and gradually increase to 27 classes per week as they adapt and become competent in teaching; additionally, trainees need to participate in certain learning and training activities. The content training covers four areas: education-related laws and regulations; subject pedagogy, referred to as "teaching selection ability" in Germany, which involves adopting different teaching methods for students with different characteristics, similar to "teaching students according to their aptitude" in China; teaching skills, including lesson planning,

instructional design, and communication with students and parents; the ability to handle special problems, such as helping students with learning difficulties reduce dropout and repetition rates, and guiding talented students to develop their strengths [3] .After completing this stage, students need to continue to take the second state examination.

2.2 In-Service Training

To ensure the overall quality of teachers, relying solely on rigorous pre-service training is not sufficient. Therefore, Germany also attaches great importance to in-service training for teachers.

Based on Germany's decentralized educational administrative system, in-service training activities for teachers are carried out independently by each state according to their respective characteristics and needs. The in-service training system for teachers can be divided into three levels in terms of administrative operation: central, local, and school levels. Most larger states have at least one independent state-run in-service training institution for teachers, responsible for coordinating with other relevant educational administrative agencies to plan and organize in-service training for primary and secondary school teachers within the state. Regional-level in-service training activities are usually planned and organized by central agencies or delegated to branches or departments, or implemented by intermediate school inspection units or local governments. School-level in-service training activities are usually conducted through school council evaluation meetings, subject meetings, meetings, and other related methods.

In terms of training forms, they can be mainly summarized as in-service teacher training, continuing education for teachers, and learning on the job. The difference between in-service teacher training and continuing education lies in the fact that continuing education refers to the acquisition of additional qualifications by teachers beyond the abilities they should have in their own profession. For example, obtaining teaching qualifications for other subjects, or learning about school management and administration. At the same time, continuing education usually takes a longer time.

In terms of training courses, through

coordination by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, the content focus and basic framework of the main subjects of the training courses are set, but there are still considerable differences in the courses offered. In terms of course formats, they are roughly divided into four types: large conferences: inviting experts, scholars, or educational administrators to give lectures on relevant topics through conference discussions; thematic research, which is the format for most courses; series of activities, carried out through cooperation between teacher training institutions and other support systems or other social institutions; work circles or work groups, which are specialized working groups formed according to topics in large conferences or thematic research for in-depth exploration and research. The specific course content is based on the premise of integrating theory with practice, covering various aspects such as general educational concepts. subject knowledge, teaching knowledge for different school types/grade levels, youth education issues, and knowledge needed for teachers' personal career development, aiming to meet the professional development needs of different teachers.

2.3 Teacher Qualification Certification

The German teacher qualification certificate is a qualification proof for the teaching profession and a prerequisite for teachers to enter the profession. Students who wish to pursue a career in teaching must pass two state examinations to be eligible for employment.

As mentioned above, after completing the theoretical learning of pre-service training, students can take the first state examination. The examination content includes: completing a thesis within three months; taking a two-hour written examination, mainly testing knowledge of two specialized subjects; an 80-minute oral examination, mainly testing psychology, school management; a pedagogy, and four-week educational internship, approximately 50 teaching hours, mainly observing teaching, grading homework, and class management, followed by writing a reflection on the internship.

After successfully passing the first state examination and completing the pre-service training internship, students can apply to take the second state examination. The content of the examination varies slightly from state to state, but usually includes a written assignment, teaching test, and oral examination. This examination is also very formal and strict, with about 5%-10% of intern teachers failing each year. Teachers who fail have one opportunity to retake the examination, but it must be completed within one year, and the internship period may be extended depending on the situation. If they fail the retake, they will lose their qualification to pursue a career in teaching.

Through the above review of the training model for primary and secondary school teachers in Germany, it is evident that great importance is attached to teacher training. In Germany, from pre-service theoretical learning to internships and then to in-service training, these processes complement each other and can be said to run through the entire process of teachers' personal professional development. The theoretical learning stage focuses on cultivating teachers' basic abilities; the internship stage focuses on cultivating teachers' teaching abilities; and in-service training focuses on cultivating teachers' ability to adapt to various changes in schools and society [4]. The two state examinations have diverse content and formats, and through written examinations, oral examinations, and theses, they can comprehensively assess the teaching qualities and potential of applicants. Through this formal and strict training and selection process, the overall quality of the and secondary school teacher primarv workforce in Germany can be effectively guaranteed to a certain extent.

3. Development of Teacher Education in Germany - Introduction of Teacher Education Standards

Despite the rigorous model of teacher training Germany, due to its decentralized in educational administration system, individual states hold the primary responsibility for teacher training and assessment, leading to some variations in teacher quality among states. To ensure and enhance the quality of school education, following a reevaluation and in-depth discussion on teacher professional development by researchers, the Conference of German Cultural and Educational Ministers released nationwide teacher education

standards to the public in December 2004. These standards redefine the five major tasks that professional teachers should undertake, propose the competency standards required to fulfill these tasks, and emphasize the joint cultivation and training of these competencies during both the university study phase and the practical learning phase [5].

3.1 Basic Content of German Teacher Education Standards

The standards redefine the role of teachers and the connotation of teacher competencies, outlining five major tasks that professional teachers should undertake. Specifically, they include: Teachers are professionals in teaching and learning; Teachers should recognize that educational tasks in schools are closely related to teaching and school life; Teachers engage in evaluation and counseling tasks in teaching, training students' professional skills, rational abilities, and sense of responsibility; Teachers continuously should develop their competencies; Teachers should participate in development plans. designing school contributing to the establishment of a learning-oriented school culture, and creating an excellent learning atmosphere.

"Teacher The Education Standards" (hereinafter referred to as "the Standards") further propose 11 specific competency indicators to elaborate on these five major tasks that teachers should fulfill. These competencies need to be gradually achieved by teachers during various stages of pre-service training and in-service training. These 11 competencies are categorized into four domains: teaching, education, evaluation, and innovation. For each competency in "the different levels of specific Standards," requirements are put forward for learners based on the distinct characteristics of the theoretical learning and practical phases, providing strong guidance.

3.2 Revise the German Teacher Education Standards

With developments and changes in technology and the educational environment, Germany, based on the implementation of the 2004 edition of the teacher education standards, revised the standards for the first time in 2014 to better meet the requirements of inclusive education and help teachers handle diversity

issues more professionally [6]. Subsequently, the standards were further refined in 2019 to adapt to the constantly changing needs and challenges in the field of education. The revised version particularly emphasizes teachers' teaching methods, research capabilities, and information management skills, requiring the rational use of digital technologies. focus on innovation. а enhancement of intercultural communication and understanding abilities, and the ability to effectively collaborate with families and communities [7]. These revisions reflect the different characteristics of teacher education in different periods.

The revision characteristics of Germany's "Standards for Teacher Education" highlight Germany's commitment to cultivating teachers with modern skills and innovative thinking. They also reflect Germany's emphasis on educational diversity and inclusivity, as well as its efforts to ensure that all students can receive high-quality education in a changing world.

4. Implications for Teacher Education in China

By reviewing and analyzing the current state of teacher education in Germany, we can gain insights for reforming teacher education in China.

4.1 Stricter Admission Standards for Teacher Education to Ensure High-Quality Applicant Pool

In Germany, the quality of applicants for teacher education programs in primary and secondary schools is high, and the process of obtaining teaching qualifications involves multiple layers of selection, ensuring a high-quality pool of prospective teachers [8]. In contrast, in China, obtaining teaching qualifications is relatively easy, and the requirements for taking the qualification exam are lenient. Moreover, due to China's unique college entrance examination system, students are admitted to universities in batches, and few normal universities are included in the first batch, meaning that high-quality applicants are unlikely to give up first-batch options to pursue a teaching career. The gap in the quality of applicants compared to Germany is evident. In Germany, students do not need to decide on a teaching career upon entering university but

can make an informed decision after fully understanding the profession, giving them more opportunities to determine their career interests. In China, choosing a normal university often means a predetermined career path. Therefore, it is necessary to conduct pre-admission interviews and vocational tests for applicants to normal universities or education schools within comprehensive universities to select those who genuinely love the teaching profession. This will help cultivate a group of students who are truly passionate about education.

4.2 Stricter Standards for Certifying Teacher Qualifications in Primary and Secondary Schools

Like many developed countries, Germany adopts a university-based approach to teacher education, and a master's degree in education is becoming increasingly common. In recent years, to improve the educational level of primary and secondary school teachers in China, some normal universities have implemented programs such as the "4+X" system for master's degrees in education.

Furthermore, obtaining teaching qualifications in Germany requires passing two national exams, which include diverse formats such as written and oral exams on basic educational knowledge, on-the-spot essay writing, and other teaching-related tests. Each year, 5%-10% of student teachers fail the second national exam and have only one chance to retake it. In China, the entry requirements for teachers are relatively low. Any student from a regular university who meets the academic requirements can apply for a teaching certificate by passing written exams and teaching demonstrations on educational theory and subject knowledge. Compared to Germany, obtaining a teaching certificate in China is relatively easy and does not guarantee teacher quality. Therefore, to improve the overall quality and standard of primary and secondary school teachers in China, it is necessary to stricten the standards for certifying teacher qualifications, standardize the approval process, and raise the entry requirements on the one hand, and to scientifically and reasonably regulate the training system on the other.

4.3 Strengthen Educational Practice and

Enhance Teachers' Comprehensive Qualities

Educational practice effectively promotes the transformation of teaching experience and enhances the teaching abilities of prospective teachers. Teacher education in German primary and secondary schools attaches great importance to educational practice. Prospective teachers in Germany must pass two national exams before entering the teaching profession and also undergo a period of educational internships during their university studies dedicated to practical educational activities [9]. In contrast, the quality and effectiveness of educational internships for prospective teachers in China lag significantly behind those in Germany. The internship period for prospective teachers in China is typically 8-10 weeks, or even 6-8 weeks in some institutions, and most often falls short of this standard. Educational practice often becomes a mere formality. This is partly due to the pressure on internship schools to focus on exams or rankings, making them reluctant to allow interns to teach more Additionally. classes. interns. facing employment pressure during the prime job-seeking period, often cannot fully commit educational internships. to Furthermore, schools lack corresponding internship quality supervision mechanisms. Therefore, China should promptly establish nationwide regulations for teacher education management to provide clear guidelines for the educational internships and practices of prospective teachers.

4.4 Strengthen the Construction of the Education Curriculum System

The education curriculum is the foundation and core of teacher education programs [10]. The education curriculum for teacher education programs in German primary and secondary schools covers a wide range of subjects with a reasonable proportion. Education courses account for approximately 20%-30% of all courses, encompassing over 30 subjects such as basic theories of education, philosophy. management. psychology, technology, and law. However, the education curriculum in China has long been limited in variety and outdated in content. Although the proportion of education courses has increased with educational reforms, the quality of training remains low, and it does not effectively promote the development of students' teaching qualities. Therefore, to effectively promote the teaching knowledge and qualities of prospective teachers in China, it is particularly urgent and important to strengthen the construction and improvement of the education curriculum system.

4.5 Ensure Teachers' Economic Benefits and Social Status

In Germany, teachers are also civil servants who enjoy good economic benefits and social status. Moreover, German teachers have employment, lifelong with salaries approximately 1.5-2 times those of other ordinary employees, and they enjoy paid vacations and training periods. In China, incidents such as the kneeling incident involving a teacher in Loudi, Hunan Province, and teachers being dismissed or even dying due to conflicts with students while disciplining them have occurred repeatedly. While it is undeniable that some teachers may have behaved inappropriately or reacted excessively when educating students, and such behavior should be restrained, imposing excessive penalties on teachers for disciplining students with a "one-size-fits-all" approach may leave more and more teachers in the profession feeling disheartened. Worse still, our teaching profession may even become a "high-risk occupation" that deters university students. Therefore, to further improve teachers' status and treatment, the government should strengthen legislation to provide a good legal environment and institutional guarantees for teachers, thereby ensuring the smooth progress of educational reforms.

5. Conclusion

A strong education system leads to a strong nation, and high-caliber teachers coupled with high-quality education are the cornerstone for enhancing the national quality. Teachers, as the mainstay of education and teaching, play a pivotal role in instructional activities, and improvements in education quality hinge on the enhancement of teachers' competencies. Therefore, teacher education stands as a top priority for ensuring educational quality. Germany's well-established education system and advanced educational philosophy have positioned it as a leader on the global

education stage for an extended period, particularly in teacher training, which offers significant insights for China. We should start from the fundamentals by tightening the standards for teacher education admissions and qualification teacher certification. strengthening the of process teacher cultivation, refining the education curriculum system, and making concerted efforts to safeguard teachers' economic benefits and social status, adopting multiple measures to elevate the overall quality of the teaching profession.

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