

# *The Construction of Competency Model of Students Majoring in Primary Education Based on Key Competencies*

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**Abstract:** As the professional level of primary school teachers is directly related to the quality of national basic education, it is the goal of primary school education major to cultivate excellent primary school teachers who meet the needs of the society. The construction of the student competency model on the cultivation of primary school teachers can further clarify the cultivation goal and direction. In this paper, the literature research method is used to compare the key competencies student competency models at home and abroad, and the professional qualities of teachers trained by primary education majors are analyzed in combination with the post requirements of teachers in Shaanxi Province and the requirements of talent training objectives and graduation ability of our school. A total of 12 domain competencies and general competencies are needed to construct the student competency model of primary education majors, including information literacy, teachers' morality, art appreciation and aesthetics, education and teaching ability, character development and classroom management, knowledge integration and interdisciplinary application, self-knowledge and planning, international perspectives and cross-culture, communication and cooperation, creativity and problem solving, lifelong learning and autonomous learning, and critical thinking.

## **1. Introduction**

Since the beginning of this century, China has launched a new round of basic education curriculum reform. The connotation of primary school teachers' competencies has changed to a great extent, from emphasizing teachers' knowledge and skills to paying attention to the development of teachers' key competencies, which refers to the students' abilities and qualities formed in the process of education that can adapt them to the future social development and personal development.[1] Nowadays, more and more countries begin to emphasize the curriculum development of key competencies, and the construction of student competency model based on key competencies can play an important role in guiding the civic education in different countries. In this paper, focusing on primary education, the students' abilities that students of this major need to grow into primary school teachers in the future are analyzed, and a student competency model is

constructed to lay a good foundation for training those who will become primary school teachers in the future.

## **2. Research on Professional Competency of Teachers Required by Industry**

Through analyzing the requirements for the recruitment of primary school teachers in 25 schools in Shaanxi province, it is found that the current requirements for the professional quality of primary school teachers in the education industry are characterized by several common conditions: the requirement for the knowledge and skills of primary school teachers is to possess the corresponding teacher qualification certificate of the subject, and to have a bachelor's degree or above. Some key primary schools in Shaanxi require teachers to have a master's degree or above, and have a Mandarin proficiency level of second-class A or above. The requirements for the professional abilities of primary school teachers are more focused on their teaching ability, educational sentiment, communication and cooperation ability, sense of responsibility, and language expression ability. Overall, the education industry currently requires a high level of comprehensive quality for primary school teachers. In addition to having a solid foundation of knowledge, professional subject knowledge, and excellent teaching ability, they also need to have certain artistic appreciation ability, self-learning ability, and creative research ability.

## **3. International Research Background of Student Competency Model**

Nowadays, many cases of research on the key competencies of talents and student competency models have been studied by various countries and international organizations. One of the earliest international organizations to appear was UNESCO, which published the five pillars of learning to know, to do, to change, to live together, and to be, which enable students to have lifelong learning abilities through cultivation in these five dimensions.[2] Later, the European Union also proposed eight key competencies for cultivating lifelong learning in students, specifically reflected in mathematical and information literacy (including digital literacy, mathematical literacy, and basic technological literacy), personal and social development (learning how to learn, interpersonal, intercultural, and social skills), language literacy (mother tongue and foreign language communication), and creativity literacy (entrepreneurial spirit and cultural expression). The OECD 2030 Learning Framework published by the Organization for Economic Cooperation and Development summarizes the knowledge, skills, attitudes, and values that students should have to meet future demands in three dimensions, and focuses on the competencies that students, parents, teachers, peers, and communities cultivate through interaction.

The United States has established the “21st Century Skills” Alliance, whose core is innovation, skills, and information, and has established corresponding standards, evaluations, curricula, majors, learning environments, and professional development for teachers and other achievable conditions. The key competencies are implemented from three dimensions: life and career skills, learning and innovation skills, and information, media, and technology skills. Standards and evaluations, curricula and teaching, teacher professional development, and learning environments form the basis for ensuring the implementation of 21st-century key competencies.[3] The Singaporean government has proposed to cultivate confident citizens, enthusiastic citizens, active contributors, and proactive learners in the education process, with a focus on critical and innovative thinking, communication and collaboration, and cross-cultural and global literacy.

## **4. Domestic Research Background of Student Competency Model**

Building on the research conducted abroad, many studies on key competencies have also been

proposed in China, combining the country’s educational spirit and social values. Among them, the research conducted by the School of Educational Innovation at Beijing Normal University on educating key competencies for the 21st century is relatively authoritative. The study proposes to cultivate key competencies from three dimensions: students, teachers, and the environment. Based on a summary of global experiences, key competencies are divided into two categories: general and domain-specific, with a total of 18 competencies. Domain-specific competencies related to professional fields include language, technology, information, sports and health, humanities and society, mathematics, arts, environment, and financial literacy, while general competencies related to student learning and social life include civic responsibility, cross-cultural international understanding, leadership, communication and cooperation, self-awareness and regulation, creative thinking for problem-solving, critical thinking, and lifelong learning, totalling 9 competencies in each category.

As shown in Figure 1, with “comprehensive development of the individual” as the core, the model for the development of key competencies of Chinese students is constructed from three dimensions: cultural foundation, social participation, and independent development. Specifically, it is manifested in six major competencies, namely, humanistic literacy, scientific spirit, learning to learn, healthy living, practical innovation, and responsibility.[4] Social participation requires students to learn to undertake social responsibilities and obligations, while independent development requires students to recognize their own deficiencies and development space, and to continuously explore the path of development that suits them. Cultural foundation requires students to possess basic cultural knowledge and skills necessary for survival and development in society, and to have a scientific spirit of continuous learning.

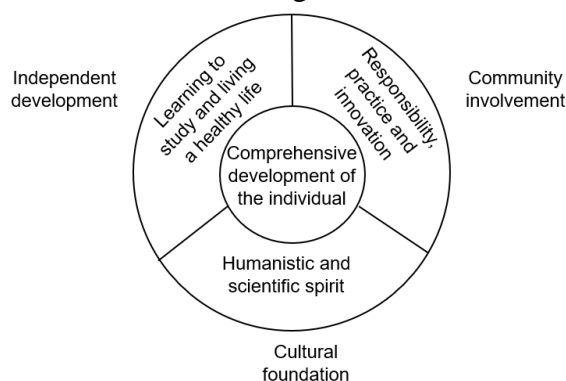


Figure 1: Model for the development of key competencies of Chinese students

Comparing the research on the model of student’s key competencies in China and abroad, although the emphasis on student’s key competencies based on different education philosophies and national conditions varies, both focus on developing students’ ability to adapt to social life. For example, they both emphasize on citizens’ responsibilities, lifelong learning, creativity, critical thinking, communication and collaboration skills. Higher economies place more emphasis on information literacy, artistic literacy, international perspectives, self-planning, and leadership skills.

## 5. A Study on the Competency Model of Students Majored in Primary Education

### 5.1. Teacher Competency Model

Primary education is an important transitional stage bridging between preschool and secondary education. In the existing student competency model, for primary school teachers, caring for life and paying attention to children’s personality development are their most important qualities. For

individual students, possessing a sense of professional mission is the driving force that pushes them to continuously learn and improve themselves, which also reflects the spiritual orientation of basic education in China, taking the ethical and moral qualities of teachers as the core of the comprehensive competency of primary school teachers, and emphasizing the spiritual value of teachers.

At the same time, primary education no longer considers knowledge and skills of subject teaching as the core for teachers, but rather requires the integration of professional knowledge and educational concepts, enabling teachers to have the interdisciplinary ability of resource integration and educational philosophy. Teachers' growth includes not only the expansion of professional knowledge and the improvement of teaching skills, but also non-professional teacher development potentials such as teachers' worldviews, values, communication skills, and reflection abilities, which are the foundation of primary school teachers' career development.

As shown in Figure 2, the comprehensive quality model for primary school teachers proposes that ethics and morals are the key to cultivating teachers. With this as the core, the model radiates outward and drives the development of teachers' qualities, from their professional skills to their comprehensive potential, with each dimension naturally transitioning and merging in the formation process. The model shows that basic education not only focuses on the diversified and all-round growth and development of students, but also on the cultivation of teachers as "comprehensive individuals". For students majoring in primary education who will soon become primary school teachers, the cultivation of their key competencies runs through their entire four years of education, integrating with their professional learning and life practices in various disciplines. [5]



Figure 2: Structural model of comprehensive quality of primary school teachers

Based on the international 21st century key competencies, how to cultivate professional students in primary education into qualified and excellent teachers is the fundamental guarantee for professional development. The ability to perform the job of a teacher cannot be separated from the qualities and abilities of professional knowledge and skills, understanding and feelings about the teacher's work, the purpose and motivation of the work, self-awareness and image, social responsibility and accountability, etc. These are also key factors for whether a teacher can achieve success in the teaching and research process. As shown in Figure 3, we intuitively represent teacher competency as an iceberg model. Skills and knowledge above the horizontal line are relatively easy to cultivate and develop. The necessary conditions for qualified and outstanding teachers are teacher qualification certificates, professional knowledge, psychology and education knowledge, but these cannot be used as the only standards to distinguish ordinary teachers from outstanding ones. Traits and motivations are located at the bottom of the iceberg, which is difficult to cultivate, evaluate and improve, but this part is an important factor in distinguishing outstanding teachers from ordinary

teachers.

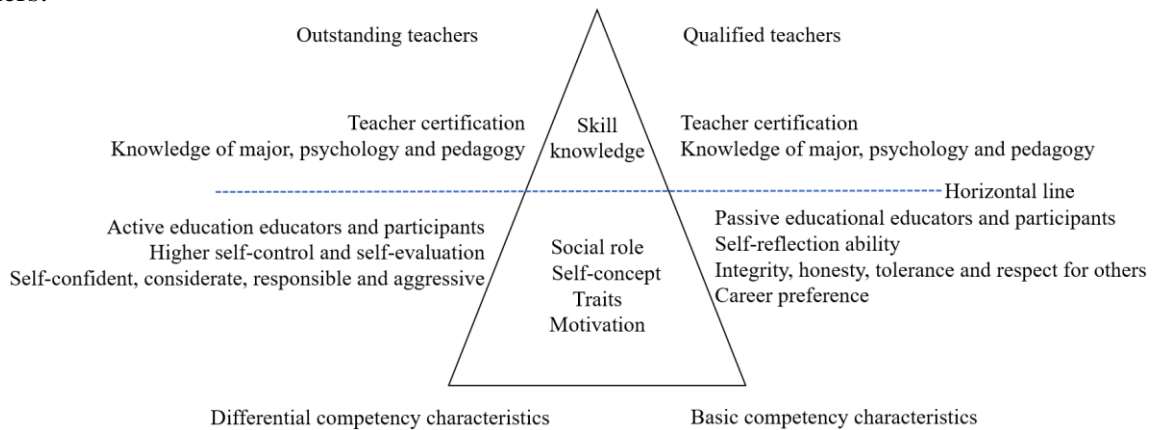


Figure 3: Iceberg model of teacher competencies

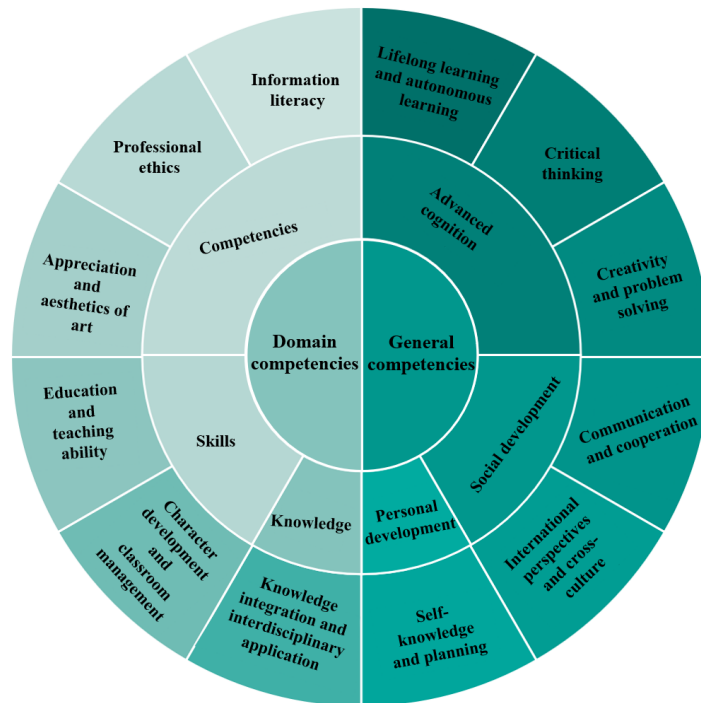


Figure 4: Competency model of students majored in primary education

Building on the foundation of the competency model for primary school teachers and the comprehensive quality development model for primary school teachers, and taking reference from the cultivation of student competencies, such as the 21st Century Skills, the College of Humanities and Education of Xi'an Eurasia University has developed a distinctive student competency model for the primary education major. Based on the demand for teacher competencies, student cultivation, and the structure of primary school teacher quality, corresponding training plans have been developed that are in line with the school and major positioning, allowing students to develop the necessary competencies over the four years of undergraduate study to become high-quality personnel capable of teaching all subjects, with a deep sense of morality, a love for the education cause of the Party and the country, an understanding of children's physical and mental development, an international perspective, and good subject quality and teaching skills. Therefore, we have divided the cultivation of students' competencies into two areas and 12 competency targets.

Based on the 21st century key competencies for future global citizens and the integration of

seven internationally recognized key competencies, a student competency model has been established for the primary education major with practicing professional ethics at its core, based on the teacher's professional competency model and the comprehensive quality model of primary school teachers. The model is divided into two domains: subject-specific competencies and general competencies, including six dimensions: high-level cognition, social development, personal growth, knowledge, skills, and competencies, divided into 12 competency goals. Students are required to grow into teachers who practice professional ethics, develop their own abilities, educate others, and teach effectively. Among them, the 12 competency goals correspond to the seven key competencies, the teacher's competency goals, and the indicators of the comprehensive quality model for primary school teachers. The resulting student competency model is shown in Figure 4.

## 5.2. Competency Model of Students Majored in Primary Education

In the process of cultivating students majored in primary education, the professional training should be combined with the general competencies that students should possess in the current social environment and the professional competencies that teachers should have in their career to build a model of student growth and competency. Among them, general competencies include three dimensions: advanced cognition, including lifelong learning, creative problem solving, and critical thinking. Lifelong and autonomous learning requires teachers to constantly adapt to changes in the education environment in order to stay ahead in their professional field, possess a broad vision to teach and have awareness for lifelong learning and professional development. Critical thinking enables teachers to compare and examine the advantages and limitations of their own future teaching methods and means, and try innovative methods to support the future development of students. Through evaluating their own educational and teaching behaviors and their effectiveness, teachers can continuously reflect and seek opportunities to promote their professional growth. Creativity and problem-solving allow teachers to think innovatively to solve practical problems, and to form innovative thinking. At the same time, social development includes communication and cooperation, as well as international perspective and cross-cultural understanding. Communication and cooperation are important for teachers to understand the role of learning communities, possess a spirit of cooperation and communication skills, and experience group cooperation and learning. In the process of communication and cooperation, teachers should respect others, express themselves actively, be tolerant of differences, and objectively evaluate themselves and others, learn to cooperate with others, and form a synergy in the team to achieve goals. International perspective and cross-cultural understanding allow teachers to understand the dynamic development of basic education reforms at home and abroad, possess an expanded vision and perspective, and adapt to the needs of the times and educational development to plan their learning and career. Personal development includes self-planning and understanding. Teachers can use critical thinking to compare themselves, and plan their future based on social development needs and their own needs.

Domain competencies include three aspects: knowledge, skills, and literacy. In terms of knowledge, students should master the basic content of the subjects taught, understand the basic ideas and methods of the subject's knowledge system, have a certain degree of knowledge and understanding of neuroscience and learning science, and be able to integrate with various disciplines to support their learning and transformation of subject knowledge. They should also have basic teaching skills and research abilities. In terms of character development and classroom management, teachers need to understand the laws of children's physical and mental development and character education, respect individual differences and uniqueness, create educational situations for students, and promote the development of students' wisdom, social interaction, and character. At the same time, they should understand the unique value of character education in various



subjects, be able to combine subject teaching with character education activities, and have the ability to establish a healthy relationship with colleagues, students' parents, and various institutions in the community to promote students' learning and healthy growth. They should be able to understand the motivation and behavior of individual and group students, create a good learning environment and suitable learning conditions for different individuals to promote positive interaction and learning among students, and understand and use diversified evaluation methods to evaluate students, ensuring sustained development in intelligence, social adaptation, and physical fitness. In terms of literacy, it includes information literacy, professional ethics, and appreciation and aesthetics of art. Information literacy involves using diversified information technology to design teaching to enrich the classroom and attract students' interest. Appreciation and aesthetics of art involve trying to use artistic means and methods in the educational and teaching process to not only promote students' knowledge-based learning but also bring rich emotional experiences to students, thus improving their sensitivity and expression to beauty and their observation and imagination of life. Professional ethics involve adhering to the professional ethical norms of teachers, having educational ideals, solid professional knowledge, and a loving heart for students.

## 6. Conclusions

Students majoring in primary education who are about to enter the teaching profession need to possess a total of 12 basic competencies in both domain-specific and general areas. In the process of cultivating these competencies, higher education should focus on developing the advanced cognition (critical thinking, lifelong learning, and creative problem-solving) and the ability to adapt to personal and social development (self-planning, cross-cultural and international perspectives, communication and collaboration). Additionally, students need to acquire knowledge (subject integration and interdisciplinary applications), skills (teaching and classroom management), and competencies (professional ethics, artistic appreciation, and information literacy) related to education and teaching.

## References

- [1] Wang Lixiu. *Comparative Study on the Compulsory Textbooks of Chemistry in Senior High School Focusing on the Key Competencies of the Subject*. Yangzhou University, 2021.
- [2] Li Yuanyuan. *Research on the Cultivation of Key Competencies of Ideological and Political Courses in Rural High Schools*. Suzhou University, 2017.
- [3] Xu Lifan. *Comparative Study on the Key Competencies Training Models of Primary and Secondary School Students at Home and Abroad*. *The Party Building and Ideological Education in Schools*, 2018 (12): 92-94.
- [4] Core literacy research group. *Developing Key Competencies of Chinese Students*. *Journal of the Chinese Society of Education*, 2016 (10): 1-3.
- [5] Dong Jingjing, Lyu Zhimin, Wang Hongwei. *The Structure Mode of Comprehensive Literacy of Primary Education Majors*. *Journal of Heilongjiang College of Education*, 2015, 34 (01): 88-89.