

Research on the Development Countermeasure of Key Competencies in the System of Postgraduate Education and Cultivation Process in Universities under the New Situation

Jing Wu

Jilin Agricultural University, Changchun 130118, China

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Abstract: The integration and development of key competencies in the postgraduate education system can provide a precise and operational reference for the graduate cultivation objectives in colleges and universities. Agricultural colleges and universities should combine the characteristics of postgraduate education to determine the direction of key competencies in the process of postgraduate education system, in order to promote graduate students to actively participate in scientific research activities. This paper mainly takes Jilin Agricultural University as an example. Through analyzing the connotation of key competencies of graduate students, this paper explores the development of key competencies, promotes the comprehensive development of postgraduate students in colleges and universities, and improves the quality of postgraduate education.

1. Introduction

Improving the quality of postgraduate education is an important topic in current graduate education in colleges and universities. As key competencies is put on the agenda, key competencies needs to be integrated into the graduate education system, and the comprehensive ability of postgraduate students should be developed with key competencies as a standard. By strengthening the responsibilities and awareness of the tutor, the curriculum will be set according to the key competencies needs, which promote graduate students to actively integrate into research projects and ultimately improve the quality of learning. Taking Jilin Agricultural University as an example, this paper summarizes the ways to cultivate key competencies in the process of postgraduate education system, and explores the development of key competencies in the system of postgraduate education and cultivation process in colleges and universities. It is only for reference to the majority of colleagues, and I hope you would excuse me if there are shortcomings in the paper. I also hope that colleagues can make valuable and feasible suggestions.

2. Key Competencies

2.1. The Concept of Key Competencies

Key competencies, also known as "21st century competencies ", is the capacity of people to adapt to the need of information age and the knowledge society, the advanced capacity and human capacity to solve complex problems and adapt to the unpredictable situation. Key competencies is the development and transcendence of "basic skills" in the agricultural and industrial era. Its core is creative thinking ability and complex communication ability. Key competencies is epochal, comprehensive, interdisciplinary and complex.

2.2. Overview of the *Study on the Key Competencies of Student Development in the 21st Century*

The book, *Study on the Key Competencies of Student Development in the 21st Century*, the main editor is Mr. Lin Chongde. Based on China's basic national conditions and historical and cultural characteristics and use the international experience for reference, he scientifically and systematically expounded the development dimension of the key competencies of Chinese students. The research includes exploring the key competencies of student development from the traditional

culture, summarizing the key competencies of student development from the realistic needs of society, and reflecting on the key competencies of students from the current curriculum standards.

2.3. The Framework of Key Competencies in the Postgraduate Cultivation Process System

From the postgraduate re-examination, graduate students enter into the school's education and cultivation system. This system includes ideological education, curriculum setting, tutor allocation, opening speech, experimental innovation, research and argumentation, paper writing, degree awarding, employment and entrepreneurship etc. All these basic elements constitute a postgraduate education cultivation system, laying the foundation for improving the quality of postgraduate cultivation and cultivating qualified postgraduate students.

First, cultivate the freedom and independence character of graduate students. Graduate students are the main force of scientific research in colleges and universities and the main force for carrying out complex and high-intensity mental work. In the social division of labor, scientific research workers are in a weak position. In the process of scientific research, graduate students are required to integrate into their work by exploration and adherence to the truth and in the spirit of innovation, adventure and dedication. Postgraduates are high-level talents cultivated by colleges and universities. They are the elites of the future society. Their ideological and moral qualities towards work and life have an important impact on society. The important content of key competencies is to cultivate the free and independent character of graduate students so that graduate education can return to the ideal track.

Second, cultivate the innovative and critical thinking ability of the postgraduate students. The innovation is the essence of graduate students in the process of scientific research. As a highly educated knowledge group, graduate students should pay attention to the social development trend and actively participate in the discussion of social hot issues to cultivate innovative thinking ability. Innovation and critical thinking are different from logical thinking. Innovative and critical thinking are divergent and negative. The creation of new theories is made by negating the previous conclusions. In the process of learning, graduate students can solve complex social problems through scientific and rigorous methods on the basis of professional knowledge, so that innovation and critical thinking can be developed.

Then, develop the self-learning ability of graduate students. In the process of education, graduate students are mainly self-directed learning. They should arrange their own learning activities, evaluate their own learning process and results, and improve the quality of learning by adjusting and correcting their own learning process and results. The development of scientific research activities is based on the complete, profound professional knowledge that can be flexible transferred, and the research work depends more on the research ability of graduate students. Graduate students need to develop good self-learning habits and abilities. The tutors help graduate students to achieve a deep understanding of knowledge by guiding graduate students to build a sound knowledge structure, and guide graduate students to form correct self-learning methods to promote the development of graduate students' comprehensive abilities.

Finally, develop the communication and cooperation ability of graduate students. The development of scientific research activities is based on subject knowledge, and it is necessary for graduate students to be led by their own interests through context setting to conduct independent research activities. In the era of knowledge economy, research activities and traditions are somewhat different. Due to the interdisciplinary nature of knowledge, research activities cover a wider range and involve more content. It is necessary to cultivate the communication and cooperation ability of graduate students in order to shoulder more social responsibilities.

3. Ways to Cultivate Key Competencies in the Process of Graduate Education System

Investigating the way to cultivate key competencies in the process of graduate education system is conducive to further improving the postgraduate cultivation in colleges and universities, improving the quality of postgraduate cultivation, and delivering more professional and excellent graduate students for the country. The cultivation of key competencies in the process of graduate

education system should start from the following aspects.

3.1. Integration of Graduate Students' Daily Learning and Scientific Research

The extension of undergraduateization in the cultivation process of graduate students is an objective phenomenon. Knowledge learning through fixed textbook knowledge and static classroom teaching cannot cultivate the key competencies of graduate students. Whether it is innovative thinking ability, independent learning ability, or communication and cooperation ability, it can be obtained only by participating in real scientific research activities. The direction of scientific research is extensive. It is to acquire knowledge through the exploration of an uncertain and unknown world. It takes a lot of time and energy and needs to be realized through hard intellectual labor. Integrating the daily study of graduate students with scientific research work in the postgraduate cultivation system is a valuable opportunity to gain practical practice and an important means of cultivating the key competencies of graduate students. Research activities through the cognition of the apprenticeship allows students to acquire cognitive tools to help students expand their knowledge.

3.2. Strengthening the Tutor's Teaching and Educating Consciousness

The tutor plays an important role in the postgraduate study process. They not only guides graduate students to learn professional knowledge, expands their research capabilities but also help graduate students establish correct professional ethics and scientific spirit through role models. The instructor plays an important role in the cultivation process of the key competencies of graduate students. The instructor should strengthen the awareness and responsibility of educating people, and use the profound knowledge and noble morality as the model for graduate students to avoid the influence of the utilitarian evaluation system and not pay attention to the growth of graduate students. Colleges and universities should build good working conditions for postgraduate tutors. Through the assessment of their knowledge and character, urge supervisors to form a correct education concept so as to smoothly carry out teaching activities, and to improve the key competencies of graduate students through the benefit from teaching them.

3.3. Redesigning the Course Based on Key Competencies Needs

Colleges and universities should examine the curriculum setting in the postgraduate cultivation system with the key competencies needs, find out the existing problems, and propose solutions. At present, in the process of postgraduate education in Jilin Agricultural University, the number of ideological and moral courses is insufficient, which resulting in poor teaching results. The teaching methods of ideology and morality curriculum and the formation law of graduate students' ideological and moral characteristics are misplaced, which makes them far away from the study and scientific research of graduate students. So students do not pay attention to the ideological and moral curriculum, and they do not have a correct understanding of the cultivation of key competencies. In the process of postgraduate course setting, the courses of graduate students and undergraduates are not much different. They set the curriculum mainly through the discipline knowledge logic, paying attention to the systematic knowledge and systematic integrity in the process of postgraduate cultivation. This traditional way of curriculum setting is not conducive to the cultivation of graduate student's key competencies, which is not conducive to the improvement of independent learning and cooperation ability of graduate students. It is necessary to change the logic to transform the curriculum setting in the postgraduate training process from the subject curriculum setting to the competency-based curriculum setting, with the project curriculum as the core and the completion of the task as the main learning method. The postgraduate course can be a completion of the research and development of an agricultural product, a completion of the processing and making of an agricultural product, and a curriculum development about a versatile agricultural scientific research project. Thus making the curriculum based on the professional curriculum while emphasizing the forefront, innovative and critical of the knowledge, and the construction of the curriculum system based on the problems. The project curriculum should be based on selective courses. In design, flexibility should be ensured, the traditional semester

curriculum limits should be broken, and the key competencies of students should be improved through the expansion of teaching methods.

3.4. Strengthening the Instruction of Thinking Methods and Learning Methods

Graduate students are influenced by the curriculum concept in the process of learning. They are easy to focus on the study of subject knowledge and neglect the cultivation of thinking ability and learning ability. The thinking ability and learning ability of graduate students have an important influence on the cultivation of key competencies. Teachers can strengthen the guidance of students' thinking methods and learning methods in the actual teaching process, and consciously cultivate the thinking ability and innovation ability of graduate students based on professional knowledge. Teachers can also transfer the key knowledge of teaching from traditional professional knowledge teaching to the cultivation of students' thinking and innovation ability, and train the thinking ability of graduate students through lectures and other forms. Teachers should change the way of curriculum evaluation, take students' learning process and thinking quality as important examination targets, and urge graduate students to reflect on their thinking ability and learning methods. The cultivation of thinking ability and learning methods will be placed in an important position in the learning process through continuous exploration so as to enhance the quality of thinking.

4. Conclusion

In summary, in the construction process of the postgraduate education cultivation system, we should take the key competencies goal as the guide, master the problems of key competencies cultivation. Through integration of the daily study and research work of graduate students, strengthen the teacher's awareness of teaching and educating people, redesigning the course based on key competencies needs, and strengthening the instruction of thinking method and learning methods to protect the key competencies development of graduate students.

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