

Basic Ideas and Principles for the Development of Graduate Education During "the 13th Five-Year Plan"

Yiying Liu*

Kunming University of Science and Technology, Kunming, Yunnan, 650000, China

Abstract: "The 13th Five-Year Plan", referring to the period from 2016 to 2020, marks a decisive stage in building moderately prosperous society of China. During "the 13th Five-Year Plan", the demand of China's graduate education is increasing. Therefore, the development of graduate education during "the 13th Five-Year Plan" must meet the needs of the development of China's economy. By strictly adhering to the basic principle of steady development and deepening reform, improve the integral level of graduate education across the board to better provide high-level talents for the development of China's socialism. This paper, starting from the general situation of graduate education during "the 12th Five-year Plan", discusses basic ideas and principles for the development of graduate education during "the 13th Five-Year Plan" for reference only.

Keywords: "The 13th Five-Year Plan"; Graduate education; Basic ideas and principles

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1. Introduction

During the previous stage of "the 13th Five-Year Plan" - "the 12th Five-year Plan", the trend development of China's graduate education remained steady, showing a rising tendency as a whole. Relevant data indicate that the number of graduates and master's degree graduates in China increases progressively, along with the integral level of graduate education.

2. General Situation of Graduate Education During "the 13th Five-year Plan"

During "the 13th Five-year Plan", the number of admission and undergraduate increases. In 2015, enrolled graduates were about 645,100, and it reached approximately 667,100 in 2016, representing an increase of 3.41%; in 2015, there were 1,649,000 students taking the graduate entrance examination, and it reached 1,770,000 in 2016, representing an increase of 7.3%; the figure was up to 2,010,000 in 2017, representing an increase of 13.6% compared with 2016. It is anticipated that China's at-school graduates will reach 2,900,000 in 2020.

Table 1. Comparison of Number of Graduates during "the 13th Five-Year Plan"

	2015	2016	Increase (%)
Number of admission	645,100	667,100	3.41%
Number of enrollment	1,649,000	1,770,000	7.3%

During "the 13th Five-Year Plan", professional degree graduates in China increases. In 2015, there were 690,000 enrolled professional degree graduates, and it reached 850,000 in 2016, representing a significant increase of 23.19%.^[1]

3. Basic Ideas and Principles for the Development of Graduate Education during "the 13th Five-Year Plan"

3.1 Implementation of Major Policies of the Central Party Committee

The development of graduate education during "the 13th Five-Year Plan" shall thoroughly implement the spirit of the 19th National Congress of the Communist Party of China and the Third Plenary Session of the 19th CPC Central Committee, go deep into the spirit of important speeches of General Secretary Jinping Xi, and strictly abide by the overall requirements of "the 13th Five-Year Plan" of Academic Degrees and Graduate Education Development issued by the State Council in 2017.

During "the 13th Five-Year Plan", graduate education must meet the needs of the development of China's economy, adhere to the new development concept of "innovation, coordination, green, openness and sharing", deepen system reform across the board, comprehensively coordinate resource allocation, adhere to opening up and academic sharing, and improve the integral level of graduate education across the board to better provide high-level talents for the development of China's socialism.^[2]

***Corresponding Author:** Yiying Liu, Kunming University of Science and Technology, No. 68, Wenchang Road, 121 Avenue, Kunming, Yunnan, China. E-mail: 156661581@qq.com

3.2 Service for the Demand

In the development of graduate education during "the 13th Five-Year Plan", service-based demand is one of the main trends. Therefore, to better service-based demands, scientific analysis based on market and pre-stage data should be conducted. At present, the demand for graduates in China mainly covers the following aspects:

3.2.1 Development Demand of Emerging Industries

With the vigorous development of the socialist market economy and continuous innovation of China's science and technology, an increasing number of emerging industries are developing rapidly. With the characteristics of high technological content, less environmental pollution and faster upgrading, emerging industries are highly independent of deep integration of science and technology and production technology. Talent and technology play an important role in the rapid development of emerging industries. The development of graduate education is required in the course of the development of emerging industries. With the annually increased scientific and testing personnel, the proportion of graduates personnel in relation to science and testing is relatively low.^[3]

3.2.2 Development Demand of Infrastructures

There are strong demands for highly educated high-tech talents during China's socialist construction in the field of infrastructures. In addition, support relating to science and technology and modernization is required in the reform and development of traditional industries and the development of infrastructures. However, China's agricultural modernization construction is quite weak in the course of socialist construction. Furthermore, compared with foreign countries, highly educated talents in the field of agriculture, forestry, animal husbandry, sideline and fishery are in a severe shortage. 2016 national agricultural modernization development level evaluation report shows that employees at the junior high school level or below are the most potent forces in agricultural production, accounting for 31%, while those with graduate degrees is only 0.02%. Since 1950, increased input in developing highly educated talents in the field of agriculture has been made in America, and graduate education or above is required for agricultural academic extension personnel. It is obvious that there is a huge gap in developing agricultural infrastructure talents between China and foreign countries. In addition, there is an urgent need for highly educated talents in medical treatment, education and other infrastructure constructions.^[4]

3.2.3 Development Demand of Regional Balance

Unbalanced phenomena may exist in economic development between the eastern and central and western regions

of China, along with graduate education. The number of master's degree graduates and at-school graduates is far ahead in the eastern region, while there is a relatively small amount in the central and western regions. Graduate education in the eastern region has an edge compared with that of the central and western regions. During "the 13th Five-Year Plan", China supports the university construction in the central and western regions, which is the main development direction in such a period. China mainly supports the university construction from the following five aspects: I. Financial support; II. Increase in the number of admission; III. Major support in key disciplines; IV. Support for transformation development; V. Special talent policies.^[5] See Figure 1 for details.

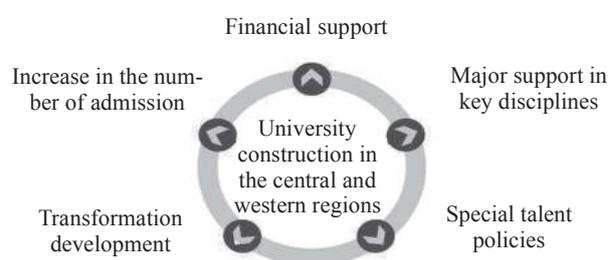


Figure 1. University Construction in the Central and Western Regions with National Support

Based on the above demands, the development of graduate education during "the 13th Five-Year Plan" should meet the needs of construction and development of China's economy, serve the infrastructure and emerging industries, and coordinate the balanced development of the eastern, central and western regions.

3.3 Improvement of Education Quality

In the development of graduate education during "the 13th Five-Year Plan", the improvement of education quality is another main trend. Graduate education, not simply awarding degrees, is to improve the quality, depth and connotation of education above all. Graduate education plays an important role in China's higher education. In order to take the cultivation of students' innovation capacity, scientific research ability and cooperative ability as the ultimate educational goal, the development of graduate education should strictly adhere to scientific laws of education and actively explore new forms. Mechanism innovation should be carried out in the development of graduate education during "the 13th Five-Year Plan". In 2017, China instituted the reform of doctoral education in fourteen universities in the field of ideological education, curriculum, and international communication.^[6]

In the development of graduate education during "the 13th Five-Year Plan", professional degree innovation

should be carried out, professional category of graduates divided, and professional structure adjusted and optimized. In the development of graduate education during "the 13th Five-Year Plan", entrepreneurship education innovation should be carried out, and China and universities should give strong support to graduates for research and entrepreneurship, and provide funds, technologies and sites, thus making entrepreneurship popular.

3.4 Achieving Proactive and Steady Innovative Development

The development of graduate education during "the 13th Five-Year Plan" shall follow the main trend of "serving the demand and improving the quality" and achieve proactive and steady innovative development. Maintain steady growth on the basis of the original scale, adjust the graduate structure according to service-based demands, carry out innovation and reform, energetically explore the new pattern of cultivating graduates, and improve the international competitiveness of highly educated talents in China.^[7]

Till 2020, the sale of graduates in China will maintain the steady growth. Data shows that the graduate scale from 2005 to 2014 has remained a higher growth rate (7.36%), and the average growth rate from 2015 to 2017 has remained at 7.66%. Calculated by the average ratio, the graduate students in 2020 will be up to 2,900,000.

According to the requirements of "the 13th Five-Year Plan" of Academic Degrees and Graduate Education Development, the ratio of graduates with professional degree and graduates with academic degree shall be up to 1.5:1--2:1. Graduate education during "the 13th Five-Year Plan" shall pay more attention to education of graduates with professional degree and maintain the current scale of graduates with academic degree. Adjust specialty classification and structural layout and carry out the reform and regulation based on education features and market demands of graduates with different educational backgrounds and different specialties to for a more reasonable structure, more scientific classification and better ratio for better serving economic and social development.

The development of graduate education during "the 13th Five-Year Plan" shall follow the training pattern of "combination of production and teaching". The ultimate purpose of education is to let educates to be smarter. Practice is the sole criterion for judging the truth. Graduate education shall focus on cultivating practical and innovative abilities and incorporating education with research. Transfer learning results into scientific achievements, apply scientific achievements into practical activities, and freshen up scientific and technological progress and social development.

The development of graduate education during "the 13th Five-Year Plan" shall be with Chinese characteristics, namely, establishing world-class universities with Chinese characteristics, offering top-level professional disciplines with Chinese characteristics, and improving the international reputation and influence of graduate education in China.

4. Principles of the Development of Graduate Education during "the 13th Five-Year Plan"

4.1 Connotation Development Principle

The basic ideas about the development of graduate education during "the 13th Five-Year Plan" can be divided into two aspects: one is to serve the demands, and the second is to improve the cultivation quality. Therefore, one of the principles of the development of graduate education during "the 13th Five-Year Plan" is determined to adhere to the connotation development principle. Connotation development consists of quality development, fine development, characteristic development and innovative development.

4.2 Principle of Service-based Demands

The development of graduate education during "the 13th Five-Year Plan" should meet the needs of construction and development of China's economy, serve the infrastructure and emerging industries, and coordinate the balanced development of the eastern, central and western regions. The first is to adjust the talent structure dynamically by regulating specialty, discipline and degree awarding according to market demands to serve the national economic construction, upgrading of traditional industries and new emerging industries; the second is to serve local development by properly adjusting graduate admission ratio in the central and western regions according to the gap of graduate scale of the eastern, central and western regions and supporting the construction and development in central and western regions; the third is to serve the development of universities by appropriately increasing or reducing the admission ratio and disciplines according to the practical demands of universities to optimize the talent structure.^[8]

4.3 Principle of Improving Quality

The development of graduate education during "the 13th Five-Year Plan" shall focus on innovation by sticking to the new development philosophy of "innovation, coordination, green, open and sharing". Carry out breakthroughs and reform from the perspectives of ideological and political education and admission assessment, and conduct the structural optimization of degree, specialty and discipline. Pay attention to cultivating practical and innovative

abilities, incorporate education with research, encourage the patent application and advocate the combination of scientific research innovation, scientific research and production.

4.4 Principle of Setting High Moral Values and Cultivating Person

In this new area, there shall be new ideas for the new journey. The development of graduate education during "the 13th Five-Year Plan" shall adhere to the principle of setting high moral values and cultivating person. The first is to fully strengthen the ideological and political education of graduate students, adhere to equip the minds of overall graduates with Mao Tse-tung Thought, Xiaoping Deng Theory, Three Represents, and Scientific Outlook on Development and Jinping Xi Thought on Socialism with Chinese Characteristics for a New Era, and improve the ideological and political quality of all graduates. The second is to comprehensively carry out moral development, propaganda and interaction of moral construction in the universities and colleges, promote the socialist core values, and advocate the positive and promising new campus spiritual features. The third is to comprehensively carry out the construction of study style, encourage original works and patent development to form the excellent study style from the perspective of love to learn, fond of learning, valuing learning, scientific research, creativity research and patent application in universities and colleges.

4.5 Principle of Enhancing Supervision

China and government departments shall enhance the supervisory function, increase the frequency of sampling thesis and strengthen the audit of degree awarding; carry out the public assessment on academic level, encourage the participation and assessment of colleges and disciplines, and support all sectors of society to carry out assessments; handle the colleges and theses with discrepancies in strict accordance with management methods, and make sure that everyone is equal before systems and institutions.

4.6 Principle of Open Development

In face of economic globalization and cultural globalization in modern society, open development principle shall be carried out in academic research. In order to achieve the development of graduate education during "the 13th Five-Year Plan", we shall go abroad and go to the world, cooperate with international universities and establish international branch schools; carry out the mutual de-

gree accreditation program, support the overseas graduate study, and attract foreign talents to China; establish world-class universities with Chinese characteristics, offer top-level professional disciplines with Chinese characteristics, and improve the international reputation and influence of graduate education in China.^[8]

5. Conclusion

In conclusion, the development of graduate education during "the 13th Five-Year Plan" must meet the needs of the development of China's economy. By strictly adhering to the basic principle of steady development and deepening reform, improve the integral level of graduate education across the board to better provide high-level talents for the development of China's socialism.

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