



# Construction of Training Mode For Geographical Science Talents In Local Colleges Under New Reform of College Entrance Examination Take Five Geographic Specialties (Teacher Education Specialty) In Hunan Province in China As An Example

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**ABSTRACT:** Colleges and universities are the main body, which provides talents for the society. Because of the reform of the new college entrance examination system, enrollment patterns and training models of colleges and universities have changed significantly. In this paper, taking five Geography Specialty (normal school) of colleges and universities in Hunan province in China as an example, on the base of analyzing the status of its talent cultivation, geography professional employment status and other aspects, the author discussed how to construct the new training mode of the geographical science talents under new reform of college entrance examination. The purpose is to provide useful suggestions and reference for the reconstruction of the mode of geographical science talents under the contemporary situation.

**Keywords:** local colleges and universities, geography science, talents training model, college entrance examination system reform

## I. INTRODUCTION

In September, 2014, the State Council of the people's Republic of China issued the "Implementing Opinions on deepening the examination and enrollment system reform" [1] (hereinafter referred to as "Implementing Opinions"). Implementing Opinions determined the Shanghai and Zhejiang as the first comprehensive reform pilot of the college entrance examination, and the comprehensive reform of the examination and enrollment system in colleges and universities will be fully implemented from 2017. With the reform of the college entrance examination system, various colleges and universities in Zhejiang have also carried out a series of reforms in the way of voluntary enrollment and the admission mode. College entrance examination no longer distinguishes liberal arts or science, and the college entrance examination adopts "Choosing 3 subjects from 6 subjects" mode or "Choosing 3 subjects from 7 subjects" mode. And the filling list of the College Entrance Examination will start to implement the "specialty + university" mode in 2017. And began to implement the "professional + school" voluntary reporting system in 2017, the university admission batches, parallel Toudang by specialty. University admission of students no longer distinguishes batches, and delivers students' documents in parallel. Hunan intends to implement the new college entrance examination system from the beginning of 2018. Enrollment system reform of college entrance examination has brought some challenges to the discipline and specialty construction of universities and colleges [2]. However, as a professor at Beijing Normal University, Chen Xiaotang said: "normal universities had not really participated in the curriculum reform of basic education" [3]. Aiming at the tide of the national college entrance examination reform and the new college entrance examination system in Hunan Province, the demand for teachers from the basic education system is facing the change, which is from the quantity demand type of traditional education to the quality demand type [4]. In order to meet the two-way choice of students and universities and the social

demand for the talents of geography science, the training mode of geographical science talents, which adapts to the society and the era, should be actively constructed.

## II. CURRENT SITUATION OF GEOGRAPHY SCIENCE TALENTS TRAINING IN COLLEGES AND UNIVERSITIES OF HUNAN PROVINCE

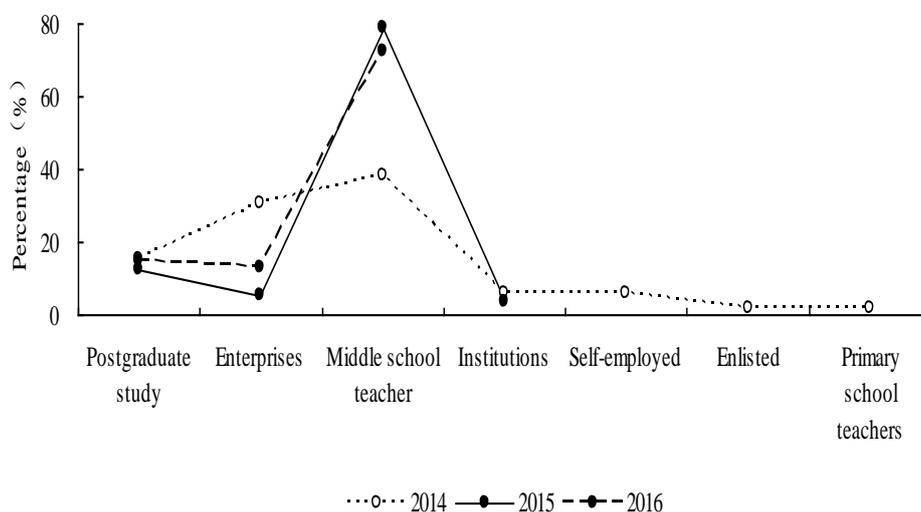
### 2.1 Status of curriculum

Geography science specialty of Hunan Normal University, Hunan University of Science and Technology, Hunan University of Arts and Science, Hengyang Normal University, Shaoyang University takes the training normal talents of geography as its orientation, and takes the basic education teacher as the training target. Five schools perform the credit system, and the credits are made up of the following aspects: Common Compulsory Course, Professional Required Course, Compulsory Courses for Teacher Education, Limited Professional Courses, Literacy Optional Courses, Optional Courses. Their main courses are basically the same. In addition to the main courses, individual schools have their own characteristic courses. The characteristic geography courses of Hunan University of Arts and Science are geography teaching skills, monographic studies of Dongting Lake area, local geography; In order to train students' geography teaching skills, Hunan Normal University has set up a course of "three boards and one Putonghua"; In order to guarantee the employment rate and the rate of postgraduate entrance examination, Hengyang Normal University offered excellent classes and regular classes in the senior semester. The excellent class mainly teaches geography teacher skills, while the regular class focuses on graduate entrance examination.

### 2.2 Employment status

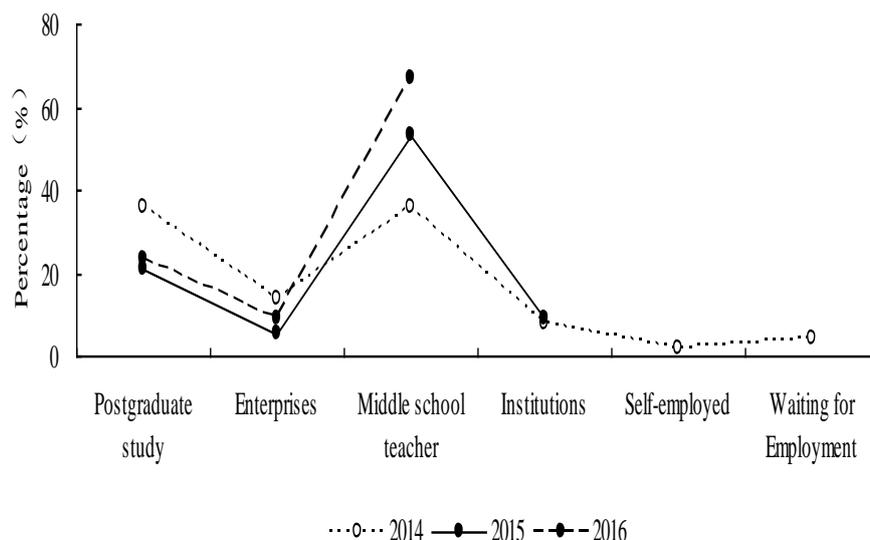
Talent training mode and specialty construction directly relates to the employment status of students. This paper selected Hunan University of Science and Technology (a first-batch university) and Hunan University of Arts and Science (a second-batch university) as an example of research.

For the students of geography specialty at Hunan University of Arts and Science, the total student is 65 people (2014a), 56 people (2015a) and 61 people (2016a) (the actual number of graduates is 64, of which 3 are not statistics.). Seen from the initial employment situation, their employment direction is mainly the middle school teacher, followed by postgraduate study, other enterprises, institutions, primary school teachers, self-employed, enlisted and so on. Among them, the number of teachers, who engaged in middle school work, accounted for 38%, 79% and 72% respectively (Fig. 1).



**Fig. 1** The initial employment situation of geography specialty at Hunan University of Arts and Science from 2014 to 2016

There are 50 people (2014), 58 people (2015) and 57 people (2016) in the geography science of Hunan University of Science and Technology. The initial employment situation shows that the employment direction of geography science specialty is mainly secondary school teachers, and the proportion is increasing, followed by postgraduate study, enterprises and institutions. The proportion of self-employed entrepreneurs is relatively small, with only one person in the 2014 session. The employment rate was good; the 2014 and 2016 sessions were 96% and 98%, respectively, and the employment rate for the 2015 session is 88% and relatively low. (Fig. 2).



**Fig. 2** Initial employment situation of geography specialty at Hunan University of Science and Technology (2014 – 2016)

A survey on job satisfaction from 56 graduates (2015) of Hunan University of Arts and Science showed that the number of people with job satisfaction as "general" accounts for up to 42%, followed by the satisfaction and dissatisfaction. The number of people that think "very satisfied" is less than 15%, and the overall satisfaction was "general" (Fig. 3).

Employment status of geographical science graduates from two schools can be found (Table 1): the employment rate is higher, but the employment is relatively narrow. The matched employment, that is the middle school teacher, showed an upward trend from 2014 to 2016. For the employment of geographical science graduates, Hunan University of Arts and Science reached more than 70%, and Hunan University of Science and Technology reached more than 60%.

**Table 1** Employment situation

Rate of employment	Evaluation of employment	Degree of matched employment
Very good	General	Not bad

### III. ANALYSIS OF TRAINING FOR GEOGRAPHICAL SCIENCE TALENTS (PEDAGOGICAL SPECIALTY) IN HUNAN UNIVERSITIES

#### 3.1 Advantages of the curriculum system

Under the new college entrance examination system, the curriculum of colleges and universities should adapt to the development of the era, and along with the reform of basic education, it should keep pace with the times. The advantages of higher geography education in Hunan are mainly embodied in the following two aspects:

First, the curriculum structure reflects the general rules of the curriculum and has obvious hierarchy.

Courses of various colleges consist of two levels, namely, required modules and elective modules. Among them, the optional courses of the specialty are made up of arbitrarily optional courses and limited optional courses. In terms of content and specialty, it is divided into specialized courses, basic courses, specialized basic courses and so on. Different levels of the curriculum are made up of different types of courses, and different courses have different requirements. This curriculum embodies the basic rules of the curriculum.

Second, the curriculum develops toward comprehensiveness and application. According to the specialized course offered by different schools and different years, the diversification of curriculum contents can be found. The curriculum is developed from the first attention to teacher education and gradually to the comprehensive and applied aspects, and basically meet the training objectives of colleges and universities. The curriculum, which related to economic and social development, such as Urban Geography, Tourism Geography, Economic Geography, has increased, and the curriculum setting also constantly improves and cultivates the students' ability to solve practical problems.

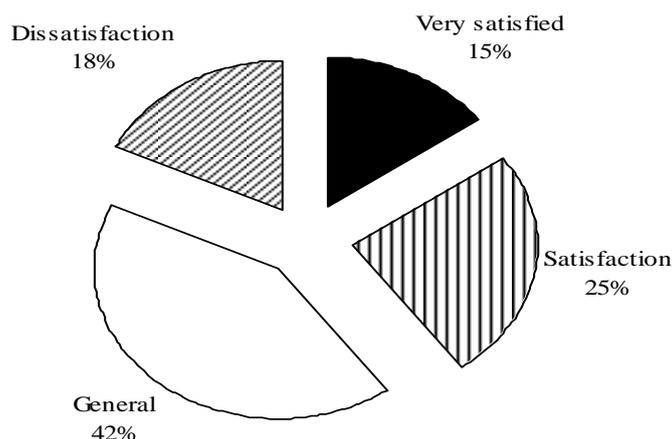


Fig. 3 Degrees of job satisfaction

### 3.2 Shortcomings

In a word, the curriculum setting of geography major in Hunan province conforms to the reform and training goal of geography science education in China and the world. However, careful analysis still shows that there are some deficiencies in the curriculum system:

First, the curriculum is not perfect and systematic. The proportion of specialty required course and elective course is irregularity. The five institutions are different in terms of required courses and elective courses (Table 2). The class hour of required courses and elective course at Hunan Normal University is near, and their number was 1938 hours and 1510 hours and accounted for 56.2% and 43.8% respectively. In this way, students' choice of basic theories and skills can be guaranteed, and the students' choice of subject can be developed, which is beneficial to the development of students' individuality and creativity. The level stage of Hunan University of Arts and Science is in the middle of the five universities, and the number of required courses and elective course at Hunan University of Arts and Science is 1938 hours and 1510 hours respectively. Class hours of required courses are 2.8 times that of the elective courses. Comparatively speaking, for the courses offered by Hunan University of Science and Technology and Hengyang Normal University, class hours of elective courses are less than that of the required courses, and their proportion has reached 5 times as much. The class hours of required course are 2387 and far more than 300 of that of the elective courses in Shaoyang University. The class hours of required course are almost 8 times that of the elective classes. Therefore, there are insufficient opportunities for students to choose, thus hinder students' autonomy and enthusiasm of learning. As is well known for all, the university curriculum plays a vital role in the cultivation of college students. It is obvious that the current curriculum is not conducive to students' personality development and all-round development.

Second, practice teaching can't be guaranteed. The class hour's proportion of the theoretical courses and the practical courses of geography science specialty at Hengyang Normal University is 91.14:8.86. Obviously, the proportion of practice teaching is very small. According to the training target of geography specialty, not only the students need to master the theory knowledge, but also the important thing is to train the students to use the theory knowledge to guide the practice. The strengthening of practical teaching is an important way to train students' practical ability. As a matter of fact, geography itself is very practical, and the existing knowledge of geography is also derived from practice. For example, Xu Xiake, an ancient geographer from China, wrote the Travels of XU Xia-ke through his travels. At present, although local colleges have realized the importance of practice teaching of geographical talent training, and increase the practice teaching, practice teaching is not very good to meet the needs of cultivating the students' practical ability because of the shortage of funds. Taking Hunan University of Arts and Science as an example, the expenditure of practice teaching is partly subsidized by the school according to the practical teaching time, and the other funds are raised by the students themselves.

Table 2 Curriculum setting of required courses and elective courses of geographical science specialty in Hunan

University	Required course		Elective course	
	Class hours	Proportion	Class hours	Proportion (%)
Hunan Normal University [5]	1938	56.2	1510	43.8
Hunan University of Science	1890	84.1	356	15.9
Hengyang Normal University [7]	1758	84.2	330	15.8
Hunan University of Arts and Science [8]	1468	74.0	516	26
Shaoyang University [9]	2387	88.84	300	11.16

Among the five universities in Hunan, for centralized teaching practice, Hunan University of Arts and Science, Hunan University of Science and Technology, Hunan Normal University arranged 34 weeks, 40 weeks and 38 weeks respectively. Moreover, the majority of practical teaching is educational practice and educational probation.

**Table 3** Teaching hours' proportion of theoretical and practical teaching of Geography Specialty in Hunan

University	Percentage of theoretical teaching (%)	Percentage of practice teaching (%)
Hunan University of Science and Technology [6]	76.7	23.3
Hengyang Normal University [7]	91.14	8.86
Hunan University of Arts and Science [8]	81	19
Shaoyang University [9]	80.63	19.37

Third, talent training in colleges and universities is not compatible with market demand. The main purpose of cultivating talents in colleges and universities is to train high-quality talents, which can meet the needs of society and promote social development. Higher education is not simply an education to impart book knowledge, but more importantly, it can enable students to apply theoretical knowledge to practice. The educational idea of colleges and universities must keep pace with the times. According to the above analysis, there are still some gaps between the geographical talents and the market demand of the five normal universities in Hunan province.

#### **IV. EXPLORATION OF INNOVATIVE TALENTS TRAINING MODE OF GEOGRAPHY SCIENCE**

##### **4.1 Establish a scientific and reasonable curriculum system**

Under the new college entrance examination system, students can choose the subjects independently according to their interests and expertise, so the cultivation mode in colleges and universities should be guided by the needs of society and students and build a scientific and reasonable curriculum system. For the universities, the perfection of the curriculum system is the foundation of training useful talents. Reforming the backward curriculum is the first step to reform the mode of talent training. In view of the uneven proportion of the required course and the elective course, colleges and universities should strengthen the related curriculum construction. ①Strengthening the construction of public basic courses. The teaching important points of the public basic course are to select the teaching content carefully, combine the key contents of each subject organically, and join the science of the forefront of the reaction era; ②Strengthening the construction of specialty curriculum of geography science. Specialty curriculum is the foundation to promote a specialty development, so the geography science talented person must grasp the basic theory and the basic technology of the geography science.

##### **4.2 Strengthen the construction of the practical teaching platform of geography science specialty**

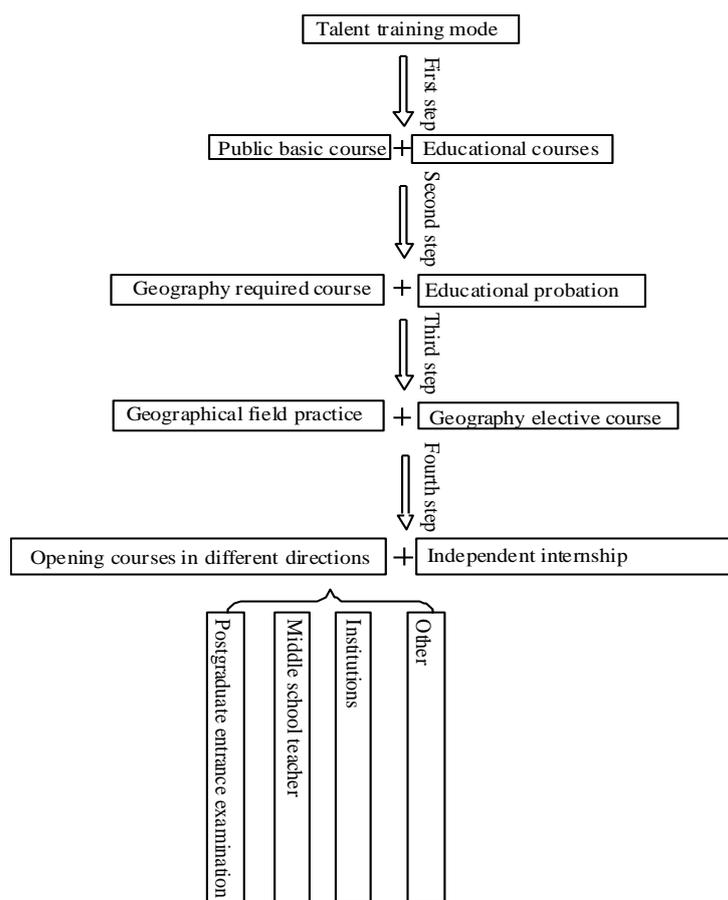
The new college entrance examination system abolished the division of Arts and Science, which provided an opportunity for students to develop in an all-round way, and students have more time to participate in social practice. Geographical practical activity is an important way to train students' practical abilities and creative ability. The geography practice can improve students' interest in learning geography, enhance the specialty identity, increase direct experience, and expand the field of cognitive learning. Thus, the activity can promote the formation of a certain geographical hobby and specialty skills and cultivate students' practical ability and scientific spirit. The content of practice teaching of geography science specialty is mainly composed of two parts: geography education practice teaching and geography specialty practice teaching. The purpose of geography education practice teaching is to train the students' abilities of geography education, and to improve their teaching skills, so that students can serve as middle school geography teachers after graduation, and provide teachers for secondary schools. Therefore, colleges and universities should increase the proportion of practice teaching.

##### **4.3 Carrying out the "Four Steps" talent training mode**

The new college entrance examination reform cancelled the admission batch, and provided favorable conditions for fair competition and high-quality students at all colleges and universities. In order to adapt to the social development, improve the comprehensive quality of geography teachers and cultivate all-round talents, the author believes that the "Four Steps" talent training mode can be carried out in the geography science specialty of local universities. The first step, the basic type: Universities make the students master the public basic knowledge and basic skills through the cultivation of new students, and lay the foundation for the cultivation of all-round talents, then train students to meet the needs of society.

The second step, the application type: students can master basic knowledge of geography science and solve practical problems with the professional knowledge. Students can find a job relating to a specific major after graduation, and become practical talents through professional skills training.

The third step, practice type: strengthening practice training, making students grasp the direct experience in practice, improving the students' practical ability, and using the knowledge of many disciplines to solve complex problems. The fourth step, comprehensive type: Universities should cultivate students' innovative ability, practical ability and comprehensive ability through various extracurricular activities, to enable them to grow into innovative talents and all-round developing talents, and train the characteristic talents of geography specialty. Students can't only engage in a job relating to a specific major, but also become a leader in the field of geography, and bring new vigor and vitality to the development of all walks of life, especially the geographical industry in China.



**Fig. 4** Talent training model of "Four Steps"

## V. CONCLUSION

Under the background of the new college entrance examination system reform, construction of geography talents training model in local universities must adhere to the principles of inheriting the tradition, bringing forth the new through the old, taking the essence and discarding the dross, and on the basis of existing, increase the intensity of innovation.

Employment direction of graduates of geography specialty in local universities is mainly a middle school geography teacher; the way of employment is narrow, and the job satisfaction is general. This paper also combines the existing geographical science talent cultivation mode of the local colleges and universities in China, takes Hunan Province geography specialty as an example to analyze their advantages and disadvantages. Then, the author puts forward the "four step" mode of geographical science talents training in local universities under the background of the new college entrance examination.

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### REFERENCES

- [1]. Implementing opinions on deepening the examination and enrollment system reform, 2014, [http://www.gov.cn/zhengce/content/2014-09/04/content\\_9065.htm](http://www.gov.cn/zhengce/content/2014-09/04/content_9065.htm).
- [2]. Ye Xiaoli, Research on the connection mode of University and high school based on the new college entrance examination reform. *Journal of Kaifeng Institute of Education*, 36 (5), 2016. 225-226.
- [3]. Cheng Xiaotang, The role of normal universities in the English curriculum reform of basic education -- Speech at the Summit Forum of the first national normal universities and colleges on curriculum reform of English teacher education and basic education, *Journal of Basic English Education*, (02), 2008, 3-6.
- [4]. Liu Yuxuan, Under the background of new curriculum reform in colleges and universities study geography teachers training mode reform — In Guangxi normal university, East China normal university and Southwest university as an example, Guangxi Normal University, China, MA, 2014.
- [5]. Hunan Normal University, Undergraduate teaching plan of Geographical Science at Hunan Normal University, 2010.
- [6]. Hunan University of Science and Technology, Undergraduate teaching plan of Geographical Science at Hunan University of Science and Technology, 2013.
- [7]. Hengyang Normal University, Undergraduate teaching plan of Geographical Science in Hengyang Normal University, 2013.
- [8]. Hunan University of Arts and Science, Undergraduate teaching plan of Geographical Science at Hunan University of Arts and Science, 2010.
- [9]. Shaoyang University, Undergraduate teaching plan of Geographical Science at Shaoyang University, 2010.
- [10]. WANAG Cheng-chao, HUANG Min-sheng, LIAO Shan-gang, HU Min, PANG Wen, Discussion on Optimization of Regional Geography Curriculum for Geographical Science in Normal Universities — A Case Study of Fujian Normal University, *Chinese Geological Education*, (01), 2016, 62-65.
- [11]. Ren Ru, Zhang Qing, Obstacles and strategies for effective implementation of geography practice teaching, *Journal of Educational Institute of Jilin Province*, (05), 2014, 16-17.
- [12]. WANG Zhong-nan, Analysis of the Reform of Examination and Enrollment System — Based on the Dimension of "Freedom and Justice", *Theory and Practice of Education*, (31), 2016, 31-34.
- [13]. Ying Chaoshuai, New Exploration of the Fairness between the Admission Subjects — Analysis on the College Entrance Examination reform in Zhejiang, *China Higher Education Research*, (05), 2016, 41-45.

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