

Reflection on the Development of Chinese University Entrance Examination: Key Factors for the Educational Reform

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ABSTRACT

Under the environment of the Chinese University Examination, also known as Gaokao, there are many discussions about the reform that will take place in the future or even now. This article included an interview that interviewed six people to see their thoughts towards the reform of the Chinese University Entrance Examination. Three of the interviews were Chinese teachers, one Mathematics teacher, one English teacher, and one student. They all had their own opinions towards the reform. From the literature review, several problems were discovered: The university enrollment rate was low, while students have only one chance. Hence, students have huge pressure. Moreover, huge inequality in education between developed areas and less developed areas still exists. To solve these problems, suggestions are also given. Firstly, more chances to take the exam can be provided. Secondly, a double-teacher-system can be adopted. Besides, increasing the percentage of competence education sections should be taken into consideration.

Keywords: Chinese Education System, Reform, University Entrance Examination

1. INTRODUCTION

School education system generally refers to public schooling, and more commonly to kindergarten through high school programs. School education systems are different between countries as a result of a different culture, history, economic policies, and population differences. The structure of educational system usually varies between countries, but occasionally occur within countries in different religions such as Germany. Specific differences are focused on the question of when kids are separated and selected to go to schools at different levels. The structure of school education systems also depends on governance and the ownership of the educational system. Schooling in China includes three years of kindergarten, six years of elementary school, three years of middle school, three years of high school. After completing these schools, students will have an opportunity to get higher education depends on their score of Gaokao, the university entrance examination. The six years of elementary education as well as the three years of middle school are mandatory and mostly funded by the Chinese government. In some areas, students still might be charged some minimal fees for foods and extra-curricular activities. This article included an interview which asked six people, who concluded that all of these six people think

Chinese Secondary School laid a good foundation for students, especially those basic skills they need to be using in the future, for example, simple math calculation skill, Chinese reading and writing skill, English reading and writing skill, and computer skill. It has also been suggested by them that Chinese Secondary Schools mostly put their focus on getting a good score in big provincial exams. Most of the Chinese students are going to school from 8 am to 5 pm, so they lack extracurricular activities. This essay will discuss the main reform ideas that people are proposing in China currently, for example, independent recruitment, curriculum reform, and the cancel of the division of students into different tracks in high school. Besides, some suggestions to the China education system and the university entrance exam will be put forward.

2. SUMMARY OF CHINESE EDUCATION SYSTEM

Chapter II of the Education Law of the People's Republic of China stipulates that parents or guardians of school-age children and adolescents, as well as relevant social organizations and individuals, have the obligation to enable school-age children and adolescents to receive and complete compulsory education for a prescribed number of years.

Table 1. Enrollment Rate of Compulsory Education Period and High School

Years	Enrollment Rate of Elementary School	Enrollment Rate of Middle School	Enrollment Rate of High School
1990	97.80%	74.60%	40.60%
1995	98.50%	90.80%	50.30%
2000	99.10%	94.90%	51.20%
2001	99.10%	95.50%	52.90%
2002	98.60%	97.00%	58.30%
2003	98.70%	97.90%	59.60%
2004	98.90%	98.10%	63.80%
2005	99.20%	98.40%	69.70%
2006	99.30%	100.00%	75.70%
2007	99.50%	99.90%	80.50%
2008	99.50%	99.70%	82.10%
2009	99.40%	99.10%	85.60%
2010	99.70%	98.70%	87.50%
2011	99.80%	98.30%	88.90%
2012	99.90%	98.30%	88.40%
2013	99.70%	98.30%	91.20%
2014	99.80%	98.00%	95.10%
2015	99.90%	98.20%	94.10%
2016	99.90%	98.70%	93.70%
2017	99.90%	98.80%	94.90%
2018	100.00%	99.10%	95.20%

(China Statistical Yearbook, 2019)

China also implements a system of vocational education and adult education. The people's governments at all levels, relevant administrative departments, enterprises, and institutions shall take measures to develop and ensure that citizens receive vocational school education or various forms of vocational training. Besides, China implements the national education examination system. The categories of national education examinations shall be determined by the administrative Department of Education under the State Council and undertaken by the institutions that carry out the examinations approved by the state. Furthermore, China implements a system of academic certificates. Schools and other institutions of education established or recognized by the State shall, following the relevant provisions of the state, issue academic certificates or other academic certificates. China also implements a degree system. Degree awarding units shall, by law, confer corresponding degrees and issue degree certificates to persons who have reached a certain academic level or professional and technical level. In the Educational System in China, Yang (2009) [2] concluded the Chinese educational

administration system. He divided the system into five periods: the completion of socialist restructuring (1949-1956), the beginning of the socialist reform (1957-1965), the Cultural Revolution (1966-1976), the time of building the socialist commodity economy (1977-1991) and the stage of building socialist market economy (1992-2008) [1].

3. THE CHINESE STUDENTS POPULATION

The Chinese University Entrance Examination, known as the Gaokao, is becoming more and more important year by year as China undergoes modernization. To meet China's growing economy, the number of students going into university is also increasing each year and a concomitant increase in higher education arrangements. From 1978 to 2018, the number of universities increased by 2065, and the number of new students enrolled in them rose from 85.6 to 2831.0 per 10,000 people [4].

Table 2. Number of Students at Different Levels of Education (2018) (per person)

Subjects	Number of Graduates	Number of Enrollments	Number of Students in School
Higher Education			
Postgraduates	604,368	857,966	2,731,257
Doctoral Students	60,724	95,502	389,518
Masters	543,644	762,464	2,341,739
University Students	3,868,358	4,221,590	16,973,343
College Students	3,664,729	3,688,341	11,337,005
Secondary Education	26,532,791	29,523,486	86,027,102
High School Students	12,701,215	13,497,555	39,346,687
Middle School Students	13,831,576	16,025,931	46,525,854
Elementary Education	16,888,395	18,672,970	104,125,004
Elementary School Students	16,164,927	18,672,970	104,125,004
Pre-School Education	17,906,336	18,639,134	46,564,204

(China Statistical Yearbook, 2019)

4. GAOKAO

4.1. Before the Exam

Before taking the exam, students have to register with the national exam organization and fill in an application form to select the universities and majors they want to apply for. When registering, applicants are required to provide their personal and family information, high school attendance, educational achievements, a medical certification proving they are satisfactory healthy, and also moral and political assessments, including their records of attitudes towards political policies, a criminal record check, and a cults membership check. This information is going to be written down in their files, and it is used to determine their qualification for taking the exam.

4.2. The Application Form and the University Type

Candidates must complete another application form to put in the universities and majors they want to apply for. Depending on the type of university, the application form consists of four sections. The first section is for some special universities, for example, the army or police academy. The second part is applications to top universities in China or the universities authorized by the Department of Education. The third part is for those remaining universities that are not prestigious in China. The fourth part is for those universities which only provides a bachelor's degree. The Department of Education circulates a list of universities in each

section. Students can choose two universities in section one, three universities from the other three sections. Within a single university, three to five majors could be chosen. The constituent part of the university entrance exam varies between different provinces [6].

4.3. The Subjects on the Exam

All provinces' exams have mandatory courses—Chinese, Math, and English. Some provinces are still using the departmental system, which students can choose either to take natural sciences or liberal arts. While now the Department of Education tried the new "3+3" method in some other provinces such as Beijing and Shanghai. This is a regional reform because there were so many criticisms about the division of natural sciences and liberal arts. This policy gives students the right to choose another three subjects that they are good at from Sociology, History, Geography, Physics, Chemistry, Biology, etc. other than Chinese, Math, and English [3].

4.4. The Vocational Training

For others who were not able to get into a high school would go to the secondary vocational training schools, and they would not sign up for the university entrance examination. Besides, people who are not able to go to university can go to post-secondary vocational training school.

Table 3. The population of In-school Students of Secondary Vocational Training Schools and Post-secondary Vocational Training Schools (per 10,000 people)

Years	Post-Secondary Vocational Training School	Secondary Vocational Training School
1978	38.0	212.8
1980	28.2	586.3
1985	58.0	476.1
1990	74.3	763.5
1995	126.8	1,230.2
2000	100.9	1,284.5
2001	146.8	1,164.9
2002	193.4	1,190.8
2003	479.4	1,256.7
2004	595.7	1,409.2
2005	713.0	1,600.0
2006	795.5	1,890.9
2007	860.6	1,987.0
2008	916.8	2,087.1
2009	964.8	2,194.2
2010	966.2	2,237.4
2011	958.9	2,204.3
2012	964.2	2,122.7
2013	973.6	1,923.0
2014	1,006.6	1,755.3
2015	1,048.6	1,656.7
2016	1,082.9	1,599.0
2017	1,105.0	1,592.5
2018	1,133.7	1,555.3

(China Statistical Yearbook, 2019)

5. PROS AND CONS OF GAOKAO

5.1. Pros about the University Entrance Examination

Many people concern about the fairness of this system and the equality of opportunities for all students. According to the interview this article included, nearly 80% of the interviewers consider the university entrance exam as the only chance for students who are living in disadvantaged areas to go to university in prosperous cities such as Beijing so that they have more access to more employment resources. Therefore, the overall fairness is guaranteed, and the college entrance examination still provides a channel for social mobility.

5.2. Cons about the University Entrance Examination

5.2.1. The Division Between Natural Sciences and Liberal Arts

There are problems caused by the division of natural sciences and liberal arts. For example, maybe a

student is good at Chemistry, Biology, History, and Geography, but he is not good at Physics and Politics, therefore, it is hard for him to choose either natural sciences or liberal arts. The new "3+3" method perfectly solved this problem since students can choose whatever three subjects that they are good at from the six subjects listed above.

5.2.2. Huge Pressure on the University Entrance Examination Applicants

Another problem is the severe pressure have on applicants since the university education marked increasing life opportunities in China because the whole society is so competitive about this exam. The number of university applicants largely exceeded the number of available seats. Hence, students start to prepare for the university entrance examination at a young age, so parents put extensive pressure on their children. Davey and Higgins [7] interviewed a Chinese school student who said:

I spend my waking hours studying and even my spare time is dedicated to after-school curricula. Life is hard and all my friends worry about failing our exams. Sometimes I feel I cannot cope but I just do not want to let my parents down.[5]

5.2.3. Top Universities are in Developed Areas and Available Seats are Limited

According to the Ministry of Education of the People's Republic of China, 10.71 million people signed up for the university entrance exam in the year of 2020. In the year 2019, there were 10.31 million applicants, but only less than 5 million went to university. The top universities are usually centralized in developed areas, so it is even harder for those students in undeveloped regions to go to universities.

6. RATIONAL UNDERSTANDING OF EDUCATIONAL EQUITY AND SOCIAL STRATIFICATION IN CHINA

6.1. The Impact of Economic Stratification on Educational Equity

Economic stratification means different occupations and different posts. According to different economic income, different social groups can be divided, and the income of urban and rural families is different. In the process of economic development, the income of urban residents and rural residents has also begun to increase significantly. But in this process, the income gap between urban and rural residents is also growing. The difference in GDP among different regions is also growing with the richest and poorest regions emerging. This is bound to affect children's access to education, resulting in a huge gap between urban and rural education.

Table 4. Ranking of GDP, Educational funds, Percentage of Educational Funds in GDP in Different Provinces of China (per 100 million RMB)

Rankings	Regions	2015 GDP	2015 Educational Funds	Percentage of Educational Funds in GDP
1	Guangdong	72,812.55	2,736	3.76%
2	Jiangsu	70,116.40	2,080	2.97%
3	Shandong	63,002.30	1,885	2.99%
4	Zhejiang	42,886.00	1,608	3.75%
5	Henan	37,010.25	1,639	4.43%
6	Sichuan	30,103.10	1,451	4.82%
7	Hebei	29,806.10	1,086	3.64%
8	Hubei	29,550.19	987	3.34%
9	Hunan	29,047.20	1,129	3.89%
10	Liaoning	28,700.00	870	3.03%
11	Fujian	25,979.82	893	3.44%
12	Shanghai	24,964.99	989	3.96%
13	Beijing	22,968.60	1,094	4.76%
14	Anhui	22,005.60	1,046	4.75%
15	Shaanxi	18,171.86	910	5.01%
16	Inner Mongolia	18,032.79	639	3.54%
17	Guangxi	16,803.12	859	5.11%
18	Jiangsi	16,723.80	893	5.34%
19	Tianjin	16,538.19	633	3.83%
20	Chongqing	15,719.72	698	4.44%
21	Heilongjiang	15,083.70	628	4.16%
22	Jilin	14,274.11	535	3.75%
23	Yunnan	13,717.88	920	6.71%
24	Shanxi	12,802.58	704	5.50%
25	Guizhou	10,502.56	770	7.33%
26	Xinjiang	9,324.80	635	6.81%
27	Gansu	6,790.32	518	7.63%
28	Hainan	3,702.80	241	6.51%
29	Ningxia	2,911.77	170	5.84%
30	Qinghai	2,417.05	198	8.19%
31	Tibet	1,026.39	153	14.91%

In some rural areas, although they have the right to compulsory education, the enrollment rate of primary and secondary schools is still very low. Some students begin to drop out of school after middle school. Moreover, compared with urban areas, rural areas are lack in educational funds, basic infrastructures, qualified teachers, and family

(Provincial Government Reports, 2016) education due to the considerable number of left-behind children. Many schools are dilapidated. Based on the scarcity of educational resources, the inequality of educational opportunities is becoming more and more serious. In urban areas, social class differentiation is also serious. There is a certain gap in the income of different families, and there are also

great differences in the process of education investment. Although the state has taken some measures from the policy and the charging system of college enrollment which can help families to reduce the pressure of education. However, because some families are relatively poor, they still cannot meet the needs of education.

6.2. The Influence of Family Education on Educational Equity

The educational background of parents, to a certain extent, will also affect the educational opportunities of their children. For the parents who have a higher education background, they usually tend to choose professions such as private schools, or noble schools. For those parents who do not have enough knowledge or money to send their children to private schools, they are more likely to let their children go to normal public schools. As a result, most of their kids would stay in undeveloped regions or mediocre. The educational background of these parents is inherited from generation to generation, which will affect their children, resulting in different levels of understanding of educations due to parents' educational background.

6.3. The Influence of Occupational Stratification on Educational Equity

Occupation and one's income and prestige are closely linked in modern society. Therefore, in the division of social status, power is one of the important criteria. In the process of social and economic development, the social classes in China began to widen the gap from prestige, social status, and income. Also, they formed different professional groups. Different professional status, different levels of income, and these incomes are the resources that children need in the process of education. In some rural areas, parents are engaged in manual labor with fewer wages and lower prestige and power. Therefore, these manual workers cannot provide better educational conditions as parents in the urban areas could for their children. Because they are busy at meeting the basics of living, these parents can only do their best to choose more convenient educational conditions for their children and try their best to help them finish their studies successfully. Some parents have higher social prestige, higher social status, and higher income, so can provide more educational outlets for their children. Parents can also take advantage of their positions to provide more educational resources for their children.

7. SUGGESTIONS

Overall, the examination itself still maintains the fairness of education to a certain extent. The state is

also making a variety of reform attempts such as independent enrollment, the "3+3" method, and adding more competence education sectors to the exam. The benefits are, first of all, it will reduce students' stress on leaning those subjects they are not good at. It also saved students' time to attend extra classes trying to catch up. Students who want to dig more into a specific subject can apply for a certain major in university.

7.1. Several Chances for the University Entrance Examination

It is a good idea to give applicants several opportunities to take the university entrance examination. Many students are tremendously nervous when taking tests, and that will have a huge impact on their final scores since they cannot perform all their abilities. This method can largely estimate the bad elements that are affecting their scores and the opportunities of going into the best high school which has better teachers and learning or teaching conditions.

7.2. Percentage of Competence Education Sections in the Exam

According to the interview this article has included, 50% of interviewees suggested that the university school entrance examination should increase the percentage of competence courses to make it easier for applicants. While others think if the scores of competence courses got risen, students would spend more money and time on those courses, so, it is the same amount of work for students as before.

7.3. Solutions to the Social Classification Problems

It is necessary to provide fair educational opportunities to every educated person so that everyone can stand on the same starting line of education. If the social strata are very clear, there is no mobility or lack of mobility among different social strata. In the process of receiving an education, different classes cannot flow to the upper class. Then it will become a hierarchical society, and there will be no fair education. If this social class is open, everyone can move forward to the upper class through their efforts, then the social gap will continue to narrow, and education equity can be realized.

Also, the state can support the underdeveloped areas with the introduction of teachers and teaching plans from developed areas, and the support of curriculum materials. Online teaching can be used, or the "double-teacher system" teaching method, using good

teacher resources to teach students from undeveloped regions online. Local teachers can give answers to children's problems and assist online teachers when teaching. Through the Internet, technology to provide better educational resources to the students in underdeveloped areas.

8. CONCLUSION

This article reviewed the main elements of the university entrance examination and the inequality of the Chinese education system. The university entrance examination has limitations such as the available seats to enter universities are limited and students are usually under considerable pressure. Educational inequality and social stratification in China are also serious. Education Resources in urban areas and rural areas are not balanced. In addition, children from the high educational background family would have a higher chance of success. Because those parents usually put more attention to children's education. These problems need to be solved to improve the fairness of the exam.

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