

Internationalization of Chinese Higher Education

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Abstract

This paper probes into the development of internationalization of higher education in China from ancient times to modern times, including the emergence of international connections in Chinese higher education and the subsequent development of such connections, the further development of internationalization of Chinese higher education, and the regularization of internationalization of China's higher education. The discussion centers on the issue of internationalization of Chinese higher education in a chronological order by using some official statistics and documents for demonstration. Through the discussion, we may find that China has made great progress in the internationalization of higher education; however, as to Chinese higher education, there is still room for improvement so as for the country's higher education system to keep pace with the advanced education system in the developed countries.

Keywords: Chinese higher education, internationalization, reform, development

1. Introduction

From a historical perspective, the internationalization of Higher Education (IHE) in China seemed to emerge in ancient times if the modern term "international" can be understood as the relationship between small kingdoms, and underwent a lot of changes over the long history of the development of the country. However, based on the modern interpretation of the term, it seems that Higher Education in China still lies in an early stage and Chinese universities have not truly integrated into the world's Higher Education system. This paper aims at discussing the development of IHE in China in a chronological order, highlighting four important phases which are shown in the coming parts. In the discussion that will be unfolded in the following the author will try to exhibit, relying on the released statistics and the official publications, the various factors entering into roughly the whole process of Chinese internalization of higher education. The discussion is meant for showing that such a process is coupled or entangled with the country's development in which politics and economy are always the two dominant factors.

The internationalization of education in China may date back to the time when Confucius lived and the multiplicity of the nationalities of the students of his was ample evidence, while that of higher education started when various modern institutions of higher education came into being in the country in the end of the 19th century. International components of higher education are by no means new in the west and historians refer in this respect to medieval times (Teichler, 2009, p. 93). Academic efforts in the research on the internationalization of higher education were, however, relatively new things that were not carried out in earnest till the early 1990s. Teichler (2009), when tracing European experiences in the internationalization of higher education, laid out seven themes in this respect covering primarily 1) physical mobility, notably of students, academic staff and occasionally administrative staff, 2) recognition across borders of study achievements, 3) other modes of transfer of knowledge across borders and 4) international orientations and attitudes. In his paper entitled with "Internationalization of Higher Education: towards a conceptual framework", Zha (2003) addresses the nature of the internationalization of higher education by dealing with the definitions, approaches and rationales proposed by scholars. By summarizing scholars' view points, Zha shows that for him internationalization is not merely an aim itself, but an important resource in the development of higher education towards a system in line with international standards; one open and responsive to its global environment. Approaches in his discussion come up to three of which the activity approach touches student/faculty exchange, technical assistance, and international students; competence approach emphasizes the development of skills, knowledge, attitudes and value in students, faculty and staff. Zha found Cultural and Social, Academic, Economic and Political rationales for the internationalization of higher education. (pp. 249-253) Tereso (2003) devoted a lot of space to the

internationalization of higher education in the Philippines that started in the early 1990s and, besides placing the internationalization of higher education within the globalization through international trade, he set highlights of the modes of delivery of higher education under new circumstances, including branch campus, franchises, articulation, twinning, corporate program, distance education programs and study abroad programs. Two scholars, T. Mazzarol from Curtin University of Technology, Australia and R. M. Ayoubi from University of Nottingham, UK, put the internationalization of higher education entirely in the business context for observation. Mazzarol (2003) viewed internationalized higher education as part of the tertiary industry, a marketable service, tracing the international education as accounting for 9 percent of Australia's total service exports in 1996. (p. 163) Ayoubi put a high value on international partnerships in universities and argued that managers of the university through the approach of strategic management could play the main role of leading their institutions towards the international market. (p. 381) Few, if any, have so far looked into the process of development of the internationalization of higher education in a specific country.

2. The Emergence and Development of Internationalization of Chinese Higher Education

2.1 The Emergence of International Connections in Chinese Higher Education (from Ancient Times to 1840)

The emergence of international connections in Chinese higher education began in ancient times. For example, to name just a few, the Han dynasty (206 B.C. - A.D. 220) and the subsequent Wei, Jin and North and South dynasties (A.D. 220- 589) saw a wide cross-country exchange of knowledge and cultures. The Han dynasty sent Zhang Qian, a diplomatic official, to the "West" to establish a friendly relationship with other tribes. His trip opened up the now famous Silk Road, which reached as far as the ancient Rome and India and contributed to the cultural exchanges between China and other countries. Thanks to the Tang dynasty's (A.D. 618-907) open policies, students from many foreign countries, such as Tufan, Persia, Tianzhu and Japan were attracted by China's advanced knowledge and technology to Chang'an, the capital city as well as the center of Asian culture and education. When China was under the reign of the Yuan dynasty (A.D. 1271 – 1368), the Silk Road was extended to the Grand Canal, and it was during this period of time that Marco Polo, a Venetian merchant, traveled round the whole China and later wrote the internationally famous book, *The Travels of Marco Polo*, which revealed to the western countries a prosperous and exotic China and therefore drew many westerners to China to explore Chinese culture, philosophy and techniques. In the time when China was under the reign of the Ming dynasty (A.D. 1368-1644) and early Qing dynasty, China's exchanges in culture and education with the western world continued, exemplified by the famous "seven trips to what was then called 'the western ocean'" led by Zheng He, a navigator to whom the trips were assigned by the Ming dynasty, which opened up a new route to China's exchanging with the rest of the world and provided the conditions for western missionaries to preach Christian doctrines in China. Thus the period when western thoughts were introduced into China began.

2.2 Development of International Connections in Higher Education (from 1840 to 1911)

2.2.1 The Beginning of the Internationalization of Higher Education

This phase is actuated by the "Introduction of the Western Learning into China Discourse" and the Self-Strengthening Movement.

The year of 1840 was a milestone in Chinese history in that it was when the first Opium War broke out, which, together with the second Opium War, brutally placed China under the control of the invasive Western countries. It was under such conditions that Chinese leaders and scholars alike began to explore ways to save the country – mainly by learning from the West. For example, Wei Yuan, a Chinese scholar, brought up a well-known phrase "Shiyi Changji Yi zhiyi" meaning "Learning the techniques of the Barbarians in order to control the Barbarians" (Yang Rui, 2002, p. 30) and argued that western knowledge and technology, including models of higher education, should be used to assist China in gaining the strength of Western powers. His opinion was embraced by other scholars, mainly vigorous advocates of the reform of the outdated Chinese education system by learning from the reforms of Western countries. Their efforts were known as the "Introduction of the Western Learning into China" in Chinese history, reinforced by the Taiping Rebellion, which broke out between the two Opium Wars, a rebellion led by a group of peasants.

Facing the national humiliation imposed by foreign invaders, some Qing officials were also enlightened and began to launch reforms through learning from the West. Their efforts started in the 1860s in what was called the "Yangwu Movement" or the Self-Strengthening Movement, with such representatives as Li Hongzhang, Zeng Guofan, Zhang Zhidong and Zuo Zongtang. The idea of *Qiu fu* (wealth pursuing) and of *Zi qiang* (self-strengthening) were advocated and reforms in education were their priority.

After the Self-Strengthening Movement, military and technical schools as well as institutions of foreign

languages were set up in large numbers. For example, established in 1862, the Imperial Institution of Foreign Languages in Beijing (Jingshi tongwen guan) was the first to specialize in fostering translators, followed by the establishment of the Shanghai Institution of Foreign Languages in 1863 and the Guangzhou Institution of Foreign Languages in 1864 to name just a few. Those schools and institutions differed from traditional higher institutions in China in that they followed the example of Western schools in their educational principles, teaching aims, curriculum establishment as well as teaching subjects and approaches. In this sense, the Self-Strengthening Movement initiated the process of the internationalization of Chinese higher education.

Establishing modern schools and institutions at home as a way of acquiring Western knowledge to serve the development of the Chinese state on the one hand, the Self-Strengthening Movement advocates tried to send students abroad to seek for “the secrets of Western manufacturing” and “everything that Westerns were skilled at” on the other hand. Sending students abroad in Chinese modern history began with the Chinese Educational Mission to the United States in 1872, which was organized by the Qing government under the strong recommendation of Rong Hong, Li Hongzhang and Zeng Guofan.

2.2.2 The Development of the Internationalization of Chinese Higher Education

This phase is materialized by the Hundred Days of Reform. After the tragic defeat of the Qing government at the hands of Japanese armies in the Sino-Japanese War, 1894-1895, a large portion of Chinese territory was ceded and huge indemnities were paid by the government. It was under such circumstances that progressive scholars and reformers, represented by Kang Youwei and Liang Qichao, realized the insufficiency of the country's depending merely on western science and technology. Attaching great importance to institutional and ideological changes, they advised the then emperor Guangxu to reform the political system. In 1898, the emperor started the Hundred Days of Reform with the purpose of transforming the state system to a constitutional monarchy following the Western model. Among the agendas of this reform were the abolition of the Imperial Officer Selection Examinations characterized by writing stereotyped essays and practicing calligraphy, the implementation of a three-level schooling system and the transformation of old shuyuan academies into xuetang universities (Mao Ruili & Shen Guanqun 1988, p. 306). This movement gave birth to the Jingshi daxuetang (the Imperial University of Beijing), which was the first modern Chinese university and evolved into the Peking University later in 1912.

Facing the further humiliation imposed by the Eight Power Allied Forces, which intruded the Chinese territory with the excuse of suppressing the Boxer Rebellion, Zhang Zhidong and Zhang Baixi persuaded the Qing government to revive the reform started previously by the emperor Guangxu in order to save the dynasty, which was known as the Xinzheng (new policies) movement starting in 1901 and lasting for ten years. The fruits of this movement included the eventual abolition of the traditional educational system featuring the learning of Confucian books and Imperial Officer Selection Examinations as a method of selecting government officers, the establishment of xuetang (modern colleges or universities) and the sending of students abroad on a large scale.

The establishment of xuetang (universities) was accompanied by a series of reforms from the change of old curriculum designing to the transformation of traditional educational system. The method of designing curricula during this period was borrowed from Japan, with textbooks of certain modern western courses on social science such as politics, law, pedagogy, philosophy, psychology and economics were introduced through translation into China's xuetang (universities) from Japan. And there were many Japanese teachers lecturing in xuetang (universities) during this period, who scattered in almost every province of China. Those Japanese educators had made remarkable contributions to promoting the modernization of Chinese higher education by introducing from the West new educating ideas and advanced sciences and technology into China.

Succeeding the first upsurge of sending students abroad under several educational missions in the 1870s, the second one appeared during the “New Policy” period. It was estimated that the number of Chinese students studying in Japan increased from 1300 to 8000 only in one year between 1904 and 1905, the figure reaching 38307 by 1911. Meanwhile, some students went to European countries such as England, France and Germany to seek for advanced knowledge. Many of the later well-known reformers and revolutionaries as well as famous educators and scientists emerged from those studying in foreign countries, such as Zou Rong, Zhang Binglin and Lu Xun, participants in the founding of the Republic of China in 1911, and Mei Yiqi, Hu Shi and Zhu Kezhen, who contributed remarkably to the progress of China's education cause and to the advancement of Chinese science and technology.

2.3 Further Development of Internationalization of China's Higher Education from 1911 to 1976

2.3.1 The Educational Reforms Carried out During the Period of the Republic of China (1911 - 1949)

The Chinese Republican Revolution of 1911 resulted in the collapse of the Qing dynasty and the founding of the Republic China led by Sun Yat-sen's Nationalist Party. Under the new government, the Nationalist Party embarked on a series of educational reforms. The Nationalist Party became more powerful in its fight against the warlords, and restored its political stability after defeating them in 1926 when Chiang Kai-shek's Northern Expedition happened. Consequently, educational reforms continued with the results of the improvement of the educational system in modern universities and sending more students to foreign countries.

During the Republican period, two forces contributed to the implementation of reforms in higher education, one being the intellectuals participating in the New Culture Movement represented by Cai Yuanpei and the other being the central government led by Sun Yat-sen.

As a returnee from Germany and France as well as a member of the Nationalist Party, Cai Yuanpei argued that universities should teach profound academics in order to create "erudite talents" for the nation's needs. (Gan, 2004, 165) In 1917, Cai took over Peking University and applied what he had learned in Germany, Wilhelm von Humboldt's philosophy of liberal education, in particular, to the operation of Peking University. He tried to build this university into an institution of liberal education, a place extensive knowledge and various perspectives could be shared. (Cai, 1918, p. 451) He also carried out some reforms in the administration of Peking University. He applied the "professorial rule" in which important decisions were to be made by both the deans of faculties and representatives elected by professors while academic matters concerning curriculum and teaching were the latter's responsibility. He also replaced laws and politics with arts and sciences as the center of the university since by then the pursuing of profound knowledge rather than producing government officers had become the major aims of university education.

Thanks to Cai's reform, Peking University became a democratic institution as well as the academic center of Chinese universities where various ideas and political thoughts were converged. It was a successful case of applying advanced European ideas to the construction of a modern higher education system, setting a good example for other universities elsewhere in China to follow.

Returnees from the United States, mainly pragmatist scholars, exerted great impact on China's higher education as well. In 1922, they urged the Republican government to enforce the "Renxu Xuezhì" (The 1922 Institutionalization of Education Act), which incorporated institutions specializing in particular fields into the system of university and adopted a university administration system with an American-style Board of Managers in charge of financing, planning and other policy decisions, and a credit system embracing novel and unregulated approaches to curriculum designing (Hayhoe, 1996, p. 47). As a consequence, American-type universities mushroomed with the co-existence of traditional institutions offering instruction in basic disciplines instruction and special ones providing training for practical skills.

The educational reforms conducted by the Republican government were mainly focused on the following aspects:

1) Adjustment of education aims and curricula to keep up with the West

A series of laws and regulations concerning higher education were released, clearly stating that the aim of higher education was to foster scholars engaged in advanced academic studies as well as skilled workers able to apply sciences and technology to practice rather than to cultivate "Xianshi" (noble officers) and "Junzi" (gentlemen) under the old educational system with political education at the center.

As for the curriculum setting, those courses and subjects reflecting traditional views and ideas were completely removed from the new curriculum. Many of the courses offered by Peking University in the 1920s were brand-new even in those prestigious universities of the United States and European countries. During this period, the whole curriculum system was borrowed from higher education institutions in the West, and a large number of Chinese universities and technical schools alike employed original textbooks of some Western universities. This allowed modern Chinese higher education institutions to thoroughly keep abreast of the curriculum design and educating mode of the West, but the other side of the coin was that it led to the divorcing of what was taught from China's realities.

2) Transformation of the administration system of higher education

In 1927, recommended by Cai Yuanpei and Li Shizeng and illuminated by France's administration system of higher education, the Republican government established an educational system consisting of "the Great

University” as the highest academic and administrative institute of the nation and provincial university regions in replacement of the former one composed by the Ministry of Education governed by the central government and various Education Departments run by provincial governments. Cai Yuanpei was appointed as the first president of “the Great University”, which was constituted by the University Committee, committees of higher education, general education, social education and cultural undertakings, and some national academic institutions. According to different educational, economic and transportation conditions, the whole nation was divided into several university regions, each containing a university with the president in charge of administrative and academic affairs within the region. This kind of educational administration system was the fruit of an innovative idea put forth by Cai Yuanpei whose target was to promote the integration of instructing and academic performances, to contribute to the democratization of educational decision-making and implementing. This system actually combined many generally acknowledged advantages of Western universities at that time.

3) Enhancing educational and academic exchanges internationally

Under the leadership of the Nationalist Party, China’s higher education was open to an unprecedented level, exemplified by successful educational and academic exchanges of various kinds with other countries. For example, Lyons Sino-French University, set up in 1921 in France, was the first to be established by the Chinese government in a foreign country, and promoted the educational exchanges between France and China. Another example was the Chinese College of the University of Paris, established in 1920, which made the dissemination of Chinese culture to the Western world its priority, absorbing not only Chinese and French students but those from Britain, Germany, the Soviet Union, Japan, Belgium, Viet Nam, etc. and offering courses like Chinese culture, Sino-French relationship, Chinese science, Chinese law, Chinese language and literature, and Chinese history. Academic communications on the level of higher education included the exchange visits of scientific researchers and experts or professors between China and other countries, represented by the invitation of such famous Chinese scholars as Mei Yibao, Jin Yuelin, Hua Luogeng and Qian Duansheng to give lectures in American universities.

4) Strengthening the regulation and control of sending students abroad

Chinese students were continuously sent abroad to study during the Republican period, which can be divided into three phases for the convenience of discussion.

The first phase was during the period of the early Republic and the Northern Warlords (1912 – 1927). As part of the educational reform, sending students abroad was attached great importance to, with varied related policies promulgated and sources of the fund diversified.

In order to regulate the whole process of sending students abroad, the government released a series of rules and regulations concerning qualifications needed for the selection of potential overseas students, the means of selection, distribution of funds, and the management of overseas students. The fund for students studying abroad came from three sources, namely, funded by the official including the central government, provincial governments and Tsing Hua College, self-supportive, and sponsored by business groups.

Among all those organizations affiliated straightly to the central government, the Ministry of Education (MOE) took the lead in sending students abroad, followed by the Ministry of Transportation, the Department of the Army and the Admiralty. Students were sent primarily to Japan, followed by the United States and some European Countries. Table 1 displays the information about the numbers of overseas students funded by the central government.

Table 1. The statistics of the number of government-funded overseas students from 1913 to 1917

	1913	1914	1915	1916	1917
Japan	1824	1107	1200	1084	1250
Europe	242	218	184	182	173
America	unknown	510	130	131	176
total	2066	1835	1514	1397	1599

Note. Adapted from *Studying Abroad: The Historical Materials of Studying Abroad of China*, Vol. 5, p. 2626, edited by Liu Zhen & Wang Huanchen, 1980, Taiwan: Taipei National Editing and Translating House. Copyright 1980 by Taipei National Editing and Translating House.

After the First World War in 1918, influenced by the economic crisis taking place in America and European countries and the accumulated foreign debts on the part of the Chinese government, the numbers of students studying in Japan and the Europe declined dramatically. According to the statistics, the number of students sent to Europe was 16 in 1921, 94 in 1922, 19 in 1923, 61 in 1924 and 65 in 1925, while the figure of those sent to Japan fell continuously and some overseas students even went back to China during the same period.

From 1912 to 1929, Tsing Hua College sent more than 1000 students to America, which included high-level and middle-level students in universities, those receiving education in vocational and technical schools, and female students who had been constantly deprived of the right to education from the very beginning of Chinese history until the Republican period. During the ten years of the existence of Tsing Hua College before renamed as Tsing Hua University, 977 high-level students, 12 middle-level students and 53 female students were given the privilege to seek for further education in America with a total of 1109, as can be shown in the following table.

Table 2. The statistics of overseas students in America funded by Tsing Hua College from 1912 to 1929

	High-level students	Middle-level students	Technical students	Female students	total
1912	16				16
1913	43				43
1914	34	12		10	56
1915	42				42
1916	31		10	10	51
1917	44		7		51
1918	58		7	8	73
1919	63		8		71
1920	81				81
1921	45		10	10	65
1922	94				94
1923	81		5	5	91
1924	67				67
1925	69		5	5	79
1926	61				61
1927	62		5	5	72
1928	48				48
1929	38		10		48
total	977	12	67	53	1109

Note. Adapted from A five-year Statistics Table Listing the Subjects Taken by Government-sponsored Students Studying in Europe, the United States and Japan, 1930, *Statements of the Ministry of Education*, Vol. 2, No. 30.

The second phase was between stabilizing of the Republican government after moving its political center to Nan Jing city and the breaking out of the Anti-Japanese War (from 1927 to 1937).

During this period, the practice of sending students abroad was further controlled with a series of rules and regulations released to place restrictions on the selection of not only government-funded but also self-supported students and on the subjects chosen to specialize in by them. According to the *Implementation Program for Students Studying Abroad*, those government-sponsored candidates should be graduates from universities or vocational or technical schools, while the self-supported should be graduates from at least high schools; all, government-funded or self-supportive, should be subject to the examination of the authority-in-charge regarding their academic performances as well as their remarks and behavior in the foreign country. At the same time, the selection of subjects mainly in natural science and applied science were specially emphasized. The number of overseas Chinese students is revealed in the following table in which “t”, “g-s” and “s-s” stand for “total”, “government-sponsored” and “self-supported” respectively.

Table 3. The number of overseas students from 1929 to 1932

Foreign countries	1929			1930			1931			1932		
	T	g-s	s-s	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s
t	1657	89	1568	1030	91	939	450	39	411	576	37	539
Britain	49	15	34	16	13	3	25	4	21	56	9	47
Germany	86	6	80	66	5	61	84	15	69	64	6	58
France	165	2	163	142	5	137	106	3	103	108	7	101
Belgium	56	1	55	42	--	42	26	1	25	10	3	7
Sweden	--	--	--	--	--	--	3	--	3	--	--	--
Italy	1	--	1	2	--	2	1	1	--	--	--	--
Switzerland	--	--	--	--	--	--	1	--	1	--	--	--
Austria	--	--	--	11	10	1	--	--	--	3	--	3
Denmark	--	--	--	2	--	2	--	--	--	--	--	--
Holland	--	--	--	1	--	1	--	--	--	--	--	--
America	272	54	218	158	24	134	115	11	104	99	10	89
Canada	--	--	--	--	--	--	4	--	4	1	--	1
Japan	1025	11	1014	590	34	556	83	4	79	227	2	225
Egypt				--	--	--	--	--	--	5	--	5
India	3	--	3	--	--	--	1	--	1	1	--	1
The Philippines				--	--	--	1	--	1	2	--	2
Percentage	100	5.4	94.6	100%	8.8	91.	100	8.7	91.3	100	6.4	93.6
	%	%	%		%	2%	%	%	%	%	%	%

Note. Adapted from *Boxer Indemnity*, by Wang, Shuhuai, p. 313, 1974, Taiwan: Modern History Research Institution of Taipei Central Research Academe. Copyright 1974 by Modern History Research Institution of Taipei Central Research Academe.

The rules and regulations issued between 1929 and 1932 were actually incomplete and lack normalization, and the implementation was not effective. In view of this, the government realized that there was an urgent need for standardization and institutionalization of this practice, which did not happen until the later five years in which the government, after profound reconsideration, decided to assign a priority to the development of educational institutions within the country, regarding the sending of students overseas as a subsidiary means of producing talents in various fields. Under the guideline of “the Code of Sending Students Overseas” released in 1933, the sending of students abroad became much more organized and funding sources diversified.

During the five-year period (1933 to 1937), thanks to the vigorous efforts made by the Republican government, a large number of Chinese youths were able to realize their dream of receiving higher education in foreign countries. Table 4 in the following displays the number of Chinese overseas students during this period.

Table 4. The number of Chinese overseas students from 1933 to 1937

Countries	1933			1934			1935			1936			1937		
	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s	T	g-s	s-s
t	621	101	520	859	141	718	1034	104	930	894	105	789	366	41	325
Britain	75	18	57	121	64	57	102	28	74	86	37	49	37	10	27
Germany	68	17	51	61	11	50	102	10	92	9	6	3	51	6	45
France	45	6	39	42	2	40	55	1	54	22	5	17	14	--	14
Belgium	14	1	13	16	2	14	15	5	10	7	--	7	--	--	--
Italy	2	--	2	10	1	9	2	--	2	6	--	6	--	--	--
Switzerland	1	1	--	1	1	--	5	--	5	2	1	1	--	--	--
Austria	2	--	2	1	1	--	3	--	3	6	6	--	--	--	--
Denmark	1	1	--	1	--	1	1	--	1	--	--	--	--	--	--
Holland	--	--	--	1	--	1	1	1	--	--	--	--	--	--	--
America	186	49	137	254	52	202	294	54	240	255	41	214	202	23	179
Canada	1	--	1	3	--	3	3	--	3	2	--	2	--	--	--
Japan	219	8	211	347	7	340	447	3	444	496	15	481	49	--	49
Egypt	5	--	5	--	--	--	--	--	--	--	--	--	--	--	--
India	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Philippines	1	--	1	1	--	1	1	--	1	3	--	3	--	--	--
Others	--	--	--	--	--	--	3	2	1	--	--	--	13	2	11

Note. Adapted from *Statistics of Nation-wide Higher Education in 1936*, 1936, pp. 242-243, edited by the Office of Statistics, Ministry of Education

To sum up, the ten years before the breaking out of the Anti-Japanese War of 1937 witnessed a remarkable development of Chinese Students studying abroad, characterized by the standardization of selecting rules and regulations as well as the institutionalization of the whole selecting process. As a result, numerous enlightened and progressive talents were fostered, ready to make great contributions to the construction of a powerful and prosperous China.

The third phase was during and after the Anti-Japanese War (1938 – 1949).

During the period of the war of Resistance against Japan, the Republican government established a comparatively complete system of sending students abroad by strengthening the management of the officially-sponsored overseas students and imposing strict control over those self-supported ones for the purpose of the need for cultivating wartime talents and saving foreign currencies. After the victory of the War, the government encouraged overseas students to come back to serve the nation and at the same time further standardized the system through selecting and sending self-supported students as well as government-supported ones on a nation-wide scale.

After the breaking out of the War, fighting against Japanese armies became the priority of the government, so other social causes including educational undertakings needed to be in cooperation with this priority. As a result, a series of wartime education policies were issued. In the June of 1938, the Ministry of Education released “the Temporal Measures for Restricting the Sending of Overseas Students”, which was mainly concerned with the qualification for selection and the subjects allowed to be studied. As a result, compared with the previous period, the number of students sent abroad during the war time decreased sharply, as shown in Table 5.

Table 5. The number of students sent abroad from 1938 to 1942

Foreign countries	1938			1939			1940			1941			1942		
	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s	t	g-s	s-s
t	92	31	61	65	24	41	86	20	66	57			228		
Britain	40	22	18	26	24	2	--	--	--	3			46		
France	8	3	5	--	--	--	--	--	--				--		
Germany	22	4	18	---	--	--	1	--	1	--			--		
Belgium	2	--	2	--	--	--	--	--	--	--			--		
America	15	2	13	39	--	39	85	20	65	54			170		
Canada	4	--	4	--	--	--	--	--	--	--			--		
Philippines	1	--	1	--	--	--	--	--	--	--			--		
India	--	--	--	--	--	--	--	--	--	--	--	--	12	--	--

Note. The same source with the table above, pp. 242-243

While strengthening the management of sending students abroad, the government also carried out some relief work for the support of overseas students who had lost their hometowns to the hands of Japanese army and thus the source of their tuition fee and living expenses. In the year of 1943, the situation became favorable to China. Taking into account the importance of intelligent individuals for the reconstruction of the nation in the future, the Republican government decided to remove the restrictions on self-supportive students going abroad, but in order to ensure the quality of those overseas students, to the policy turned from imposing restrictions on them to strengthening the management of them. "Measures for Sending Self-supported Students to Study Abroad", released in October, stated, "The sending of self-supportive students overseas from now on should be organized and administered without any exception by the MOE".

Thanks to the encouragement of the Republican government, the number of students able to study abroad began to go up in 1943, but fell dramatically again in 1945, while the targeted foreign countries were exclusively China's military allies during the War, as shown in table 6.

Table 6. The number of students studying abroad from 1943 to 1945

Foreign	1943	1944	1945
America	358	149	2
Britain	1	156	1
Austria			5
Total	359	305	8

Note. Chinese Higher Education before Anti-Japanese War, 1972, *Revolutionary Literature* edited by Du Yuanzai, Vol. 5, pp. 181-182, Taipei: the Central Committee of the Nationalist Party of China. Copyright 1972 by the Central Committee of the Nationalist Party of China.

After China's victory of the Anti-Japanese War, the Chinese government encouraged those overseas students to return to reconstruct the heavily-inflicted motherland. Thus, some kinds of incentives were offered, such as transportation allowances, living expenses and recommendation of governmental positions. Partly urged by the government and partly inspired by the desire to make contributions to the development of their own country, a large portion of them returned from countries such as Britain, America, France, Belgium and Germany.

2.3.2 The Educational Reforms Implemented from the Founding of the People's Republic of China to the End of the Great Proletarian Cultural Revolution (1949 – 1976)

Reforms in higher education during this period were characterized by heavily borrowing from the model of universities in the Soviet Union. The year of 1952 witnessed a large-scale reform in Chinese higher education under Soviet guidance including an overall adjustment of colleges and schools typified by cultivating industrial architects and teaching staff, establishing vocational and technical institutes and reorganizing and consolidating comprehensive universities. Then a highly centralized national system of higher education was established, exemplified by the Renmin University with a Soviet style aiming to develop authoritative Marxist-Leninist theories for socialist construction. Teaching plans were made based on the national economic plan, and higher

education institutions were under the strict supervision and control of the Communist government. Colleges, schools and majors were established in accordance with industries, professions and even commercial products with the focus put on the education of technology and engineering in direction relation to economic construction. To meet the requirements of industrialization, a large number of engineering colleges and normal universities were built one after another. It is estimated that the number of engineering colleges increased from 18 in 1949 to 38 in 1953, and that of students studying in such colleges jumped from 30,000 to 80,000 (taking up 26.2% and 37.7 of the total respectively) during the same period while the figure for normal universities went up to 37 compared with the previous 12 and the proportion of students rose from 10.3% to 18.8 %.

During this period large groups of Chinese students were also sent by the new government to the Soviet Union and other socialist countries learning advanced sciences and technology to help China achieve scientific and cultural modernization. According to the MOE statistics (1959), approximately 16,152 students were dispatched to socialist countries (compared with only 64 heading for capitalist countries), among whom the majority (14,798) were sent to the Soviet Union.

The international exchanges in higher education with socialist countries in the early period of the People's Republic of China were obviously a product of the continuous endeavors by the new policy makers and educators. Unfortunately, the break-up of Sino-Soviet relationship in the 1960s impeded such endeavors, which was further exacerbated by the Great Proletarian Cultural Revolution (1966-1977).

The ten-year Cultural Revolution was a period when China's higher education was isolated from the outside world. It was the time when teaching ceased to be the priority of education with the college entrance examination abolished and the teaching of both basic and professional knowledge was simplified and minimized. It was the time when intellectuals, especially those overseas returnees, who were devoted to learning advanced scientific knowledge and technological skills from foreign countries, were labeled as capitalists, revisionists or even betrayers of the nation. It was not until the end of this Revolution that China's higher education embarked again on the road of internationalization.

2.4 Regularization of the Internationalization of China's Higher Education from 1976 to the Present

The end of the Great Proletarian Cultural Revolution marked the beginning of a new era in China when Deng Xiaoping, one of the greatest contributors to the prosperity of this country, emerged as the leader and the architect of the nation's development. He proposed that China should strive for "four modernizations" by drawing on the successful experience of other countries and at the same time retain the good traditions of our own country (Deng, 1978, p. 25; 1980, p.221). The importance of education was especially emphasized, since, in Deng's view, in order to achieve "four modernizations" it is essential for the government to acquire advanced science, technology and management skills from foreign countries, which was shown in his famous remark "Education should be geared to the needs of modernization, of the world and of the future."

This part outlines five remarkable achievements in higher education's international relations during this period which are shown as in the coming discussion.

2.4.1 Chinese Students Abroad and Foreign Students in China

In his address to Tsinghua University in 1978, Deng Xiaoping claimed that he was in favor of a great increase in the number of Chinese students studying overseas which should be realized within five years. In line with this, the MOE promptly promulgated the *Notice Concerning Increasing Selected Overseas Students*, deciding to send 3000 students abroad every year from 1980 on. According to statistics, over 170,000 students, government-funded, unit-dispatched or self-supported, went abroad to pursue further study from 1978 to the end of 1991, and China experienced a dramatic increase in the number of its overseas students in the coming years. The figure amounted to 339,700 in 2011 with most of the students funded by themselves or their families.

While numerous Chinese students were leaving China to pursue further study in foreign countries, many foreign students came to China. In 1973 China began to revert to accepting foreign students. With the carrying-out of China's reform and opening-up policy, the number of foreign countries sending students to China have continuously increased.

In the 1979 working conference concerning overseas students held jointly by the MOE and the Ministry of Foreign affairs, the guiding principle was laid out of "sticking to selection standard, admitting the better, creating a good environment to attract overseas students and gradually increasing the number of enrolment". After this, the work of admitting international students was conducted on a large scale. For example, in 1980 as many as 576 overseas undergraduates were enrolled in Chinese higher educational institutions together with 155 exchange students, and five years later foreign postgraduates were accepted for the first time. From 1978 to 1991,

the number of overseas students in China was estimated at about 80,000. From 2008 on, with an aim to meet the new needs and requirements created by internal educational development and external diplomatic relations in the new era, the Communist government decided to greatly enlarge the scale on which international students were admitted on the scholarship provided by the Chinese government, with an average increase of 3000 or so in the number of enrolled students during the three-year period ending in 2010.

2.4.2 International Exchanges of Teachers and Experts

In 1979 China dispatched to 23 countries 69 teachers who were engaged in teaching the Chinese language and science and engineering, and at the same time some Chinese higher educational institutions were invited by 8 foreign countries to send 23 professors and experts to give lectures. Between 1980 and 1985, 650 teachers were sent to teach in foreign countries and the number of professors and experts sent by Chinese universities and colleges to lecture overseas increased dramatically during the same period, with 75 in 1981 alone. By the end of 1990, a total of 165 teachers arrived in the secondary schools and tertiary institutions of 43 countries through the support of the Chinese government. While sending teachers abroad, Chinese universities or colleges began to invite foreign professors and experts to lecture and teach in China again in 1978, with a number of over 100 from 10 countries.

According to the statistics released in 1994, more than 140 Chinese specialists and educators had been dispatched to over 30 countries or regions since China began to reform and open up to the outside world, while up to 13,000 foreign scholars were employed, whether staying for a long or short period, including 1,090 language specialists, 10,200 specialists in other fields and 1600 teachers who came from over 50 countries or regions such as America, Britain, Japan and Germany. In 1995, based on the principle of “making the key points stand out, ensuring urgent needs satisfied and centering on effectiveness”, China recruited altogether 14,798 experts or lecturers, among whom there were 1858 long-term language specialists and 692 long-term specialists in other areas. The number of foreign professors and experts who come to China is ceaselessly rising and will continue to rise as the international communications and exchanges become increasingly frequent.

2.4.3 Cross-Country Academic Exchanges and Scientific Research Cooperation

From 1978 to 1984, 413 Chinese educational delegations with a total of 2506 scholars were sent abroad at the invitation of educational departments in foreign countries, while the number of foreign educational delegations invited by China was estimated at 557 composed of 3090 educators. From 1985 to 1986, the number of Chinese education delegations sent abroad was at 182 consisting of 1110 members and that of foreign delegations coming to China was 213 with 1029 members. For example, the minister of the Ministry of Education, Jiang Nanxiang, paid a visit to Germany in 1980, and after observing and studying German educational system and its experience in developing education, he was determined to draw on Germany's highly-developed higher education and vocational education, marking the opening of the educational cooperation between China and Germany.

Holding and attending international academic conferences is another way of academic exchanges. The period between 2001 and 2005 saw a steady increase in the numbers of representatives dispatched by China's higher education institutions and papers submitted to international academic conferences, with a total of 135,330 and 93,940 respectively. Table 7 indicates that 44,279 Chinese representatives took part in this kind of conferences in 2005, having increased by 31,661 as compared with the number in 2001 and with an average rise of nearly 37%.

Table 7. The data concerning international academic exchanges by Chinese higher educational institutions affiliated directly to the MOE from 2001 to 2005

	2001	2002	2003	2004	2005	total
Attendances in international academic conferences	12,618	14,865	24,043	39,525	44,279	135,330
The number of papers submitted in international	9,138	9,837	17,688	25,956	31,321	93,940
The number of lecturers employed by foreign	736	1,043	863	980	1,138	4,760
The number of lecturers employed by China	1,687	2,117	1,790	2,401	2,237	10,232
The number of visiting scholars sent abroad for	5,307	7,491	1,414	1,666	2,028	17,906
The number of visiting scholars coming to China for	4,888	7,175	1,692	2,677	2,771	19,203
The number of Chinese scholars sent abroad for	1,101	1,565	987	1,158	1,464	6,275
The number of foreign scholars coming to China for	1,913	1,747	1,028	1,114	1,075	6,877

Note. Education. In the Second Historical Archives of China (Eds), *A Compilation of Historical Archives of the Republic of China* 1997, Vol. 5, p. 891. Copyright 1997 by the Second Historical Archives of China.

On the other hand, the number of international academic conferences held in China experienced a remarkable increase as well. Specifically, as numerous as 1,261 conferences were held by Chinese universities and colleges affiliated to the MOE in the two years of 2004 and 2005, and the number of invitations sent overseas climbed from 1,924 in 2003 to 3,187 in 2005.

Cross-country academic exchanges also took the form of inter-university communications between China and foreign countries. For example, by the middle of 1982, 115 Chinese higher educational institutions had been involved in inter-university communications with 250 overseas higher educational institutions in 22 countries. By 1985, 150 Chinese universities had established various communications with more than 250 foreign counterparts.

Since the carrying-out of opening-up policy, international scientific research cooperation has played a significant role in the development of scientific research in China. Xi Youmin, Guo Ju'e & Li Huaizu (2010) categorized international cooperation in scientific research into three models: individual cooperation which means cooperation between individual researchers in different countries, project collaboration which means the collaboration between two parties centered around one joint project, and organizational (college-college) partnership which refers to the fact that colleges or universities, with their own characteristics and developing strategies, create opportunities to seek for international cooperation. According to Guo Yongzheng (2007), who analyzed the tendency in cross-country scientific research cooperation by studying published papers, international cooperation is an impetus to the progress of scientific research.

2.4.4 Chinese-Foreign Joint Programs of Running Schools

As transnational education had become a new form of international cooperation and exchanges in higher education, in 1978 China began to explore various forms of Chinese-foreign cooperation in running schools. As a result, in the mid 1980s, Renmin University of China and Fudan University set up a Sino-American training class for economics and law respectively; Tianjin University of Finance and Economics and the United States Oklahoma City University held jointly an MBA class; Nanjing University and the United States Johns Hopkins University founded together the Sino-American Center for Cultural Studies. Then in the early 1990s more and more Sino-foreign educational institutions appeared, which were located in China. In order to strengthen the management of this practice, the Chinese government issued Interim Provisions for Chinese-Foreign Cooperation in Running Schools, in which great importance was attached to it as an essential form of Chinese education in its international exchanges and cooperation as well as a complement to Chinese education as a whole. Under the guidance of the central government transnational schools grew rapidly. According to the statistics, by the end of 1995 the number of Sino-foreign educational institutions reached 300, including 60 in Shanghai and 40 in Beijing City, Jiangsu Province and Guangdong Province each. The foreign partners were predominantly from over 20 developed countries or regions, with America, Australia, Japan and Canada on the top of the list.

2.4.5 Science and Technology Cooperation and Exchanges between Chinese Higher Education Institutions and Foreign Higher Education Institutions, Cross-Country Enterprises As Well As Foreign Governments and International Organizations

At present, China has developed science and technology cooperation with foreign universities, transnational enterprises and research institutions as well as foreign governments. According to a research conducted by Xue Lan, Su Jun & He Jinqiu. (2007, p.9), foreign higher education institutions are the major cooperative party of Chinese universities whether in Beijing, Shanghai or in the western part of the country and many world first-class universities like Harvard University, MIT University, Stanford University, Cambridge University, RWTH Aachen, Kyoto University and Moscow State University have established somewhat cooperation with Tsinghua University of China.

There are some unique patterns for this particular field of science and technology cooperation and exchanges. One takes the form of science and technology cooperation programs realized through the organization of laboratories and research centers. For example, Fudan University has established several research centers in certain fields such as the Biological Development Research Center, co-founded by Yale University. Another pattern of cooperation between Chinese universities and the foreign counterparts in science and technology comes in the form of cooperation alliances and networks. For example, the "10 + 10" Plan, located in America, as a cooperation between 10 Chinese Universities and 10 Californian universities, and over 40 research institutes co-established by China and Canada. The cooperation between Chinese higher education institutions and international enterprises is another important form of China's internationalization in science and technology. According to Xue et al's research with "211 Project" universities as its objects, by August of 2007 a total of 115

transnational companies from 14 countries have collaborated with 52 Chinese universities in terms of the establishment of as many as 277 joint research and development institutes. Intergovernmental organizations play a crucial role in the participation of Chinese higher education institutions in international science and technology cooperation and exchanges, too. This is usually actuated by bilateral or multilateral international cooperation in science and technology, organized through diplomatic activities of governments and taking the form of cooperation agreements and memoranda. For example, China has participated in the international Thermonuclear Experimental Reactor program (ITER) and European Organization for Nuclear Research (CERN) in succession.

3. Summary

There were signs of international connections in Chinese higher education from almost the very beginning of Chinese history, followed by further development and a variety of educational reforms during the evolvement of internationalization of Chinese higher education. Through learning from advanced educational system, management mechanism, curriculum setting and others, and introducing foreign professors and lecturers, talented managers as well as books, China's higher education is closely connected with the outside world and has been progressed and internationalized greatly. In addition, in the process of internationalization, Chinese higher education has been constantly regularized by various laws, regulations and rules related to education. However, the higher education system of China is far from perfect, and there is still a gap between Chinese higher education and the most advanced education system in the world. Besides, the present study is far from complete to cover all the ground concerning higher education in China. Therefore, further researches and developments in this field are expected.

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