# The Budding of Vocational Education in Modern China

# -- Thoughts on Reading Knight Biggerstaff's "Westernization School"

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## Abstract

The Westernization School was born during the Westernization Movement in the 1860s, it is a series of new schools established by the late Qing government to resist western oppression, including Jingshi Tongwen Museum, Shanghai Guang Dialect Museum, Tianjin Naval Academy, Fuzhou Shipping Academy, etc. These schools are obviously professional and professional, and have an important influence on the formation and development of modern Chinese vocational education.

## Keywords

### Westernization School; Vocational Education; School.

## 1. Introduction

Since ancient times, the traditional concept of "study and excellence" has been influencing people's thinking,People try to achieve the goal of being an official through the imperial examination, education serves the imperial examination system. The content of the imperial examination is mainly eight-part essay,this makes scholars study the feudal program and the common names all day long, leading to feudal education confining people's thinking for a long time, and the stubborn ideological school will not have any influence on the change of the social environment. Therefore, China has been an independent feudal country for more than a thousand years since the imperial examination system was implemented. In the late 1830s, Britain wanted to improve the status of British businessmen in China and launched the Opium War to forcibly open the door to China. The Chinese who were ignorant of the outside world did not have the ability to resist Western aggression, and were politically, economically and culturally affected by Western powers. Under such circumstances, some people of insight realized the necessity of reform.

In 1861, Qing government officials represented by Prince Gong Yi, Zongtang Zuo, Hongzhang Li, and Zhidong Zhang initiated the Westernization Movement for forty years. In order to develop the cause of Westernization, the Westernization School established a series of new schools and cultivated a large number of majors sexual talents in order to achieve the purpose of maintaining the rule of the Qing government. Although the role of technical talents cultivated by the Westernization School during the Westernization Movement was not obvious, after the 1890s, some of the graduates of the Westernization School worked as translators abroad, some taught in other modern schools, and some had already Promoted to management engineers, these graduates have made great contributions to the dissemination of Western advanced science and technology and the development of Chinese industry. It is in this environment that vocational education in modern China began to sprout. In order to develop the cause of Westernization and meet the needs of diplomacy, a series of new-style schools were created. These government-run schools were originally mainly for training foreign language talents in

order to enhance their understanding of the West. The Jingshi Tongwen Museum, established in 1862, was the first foreign language school in modern China. It hired Westerners as teachers. The earliest batch of Tongwen Museums included Guangdong Tongwen Museum and Shanghai Guang Dialect Museum, both of which were well-known foreign language schools at that time. With the development of the Westernization Movement, the Westernization School has successively established schools focusing on cultivating technical talents, including Shanghai Jiangnan Manufacturing Bureau, Fuzhou Shipping Bureau, Tianjin Naval Academy, and Beiyang Medical School. The Westernization Academy cultivates specialized talents required for Westernization activities, with obvious professionalism, which has laid the foundation for the development of vocational education in modern China.

## 2. The birth of the Westernization School

## 2.1. External Cause

Before the Opium War, there were missionaries giving lectures in China. They were forbidden to run schools at the beginning, so they first established churches in coastal cities. During this period, almost no Chinese were interested in Christianity. The audience of the church are just beggars or people who are interested in foreign-looking foreigners. Chinese traditional culture deeply influences people's thinking, and the spread of Christianity is difficult. Some missionaries wholeheartedly wanted to promote Western civilization and run mission schools in China, but they were always restricted by the Qing government. Until the Opium War China signed a series of unequal treaties, the missionaries obtained the privilege of preaching and running schools in China. The establishment of mission schools is the main method used by imperialists to educate invade China, it is to train talents who will serve the aggressors. Their ultimate goal is to conquer China and turn China into their colony.

### 2.2. Internal Cause.

Traditional Chinese education has been impacted by Western culture, and a situation of internal and external troubles has taken shape. Some independent thinkers realize that the Chinese have no knowledge of the outside world and are weak and incompetent in military technology. They have begun to require schools to learn Western science Technology, imitating the West to build ships and train translators. In the 1860s, the Westernization Movement, represented by Yi xin, Hongzhang Li, and Zhidong Zhang, advocated "learning from the middle school as the body, and the use of Western learning", slogan "self-improvement", and the Westernization Movement arose. In order to develop the cause of Westernization and meet the needs of diplomacy, a series of new-style schools were created. These government-run schools were originally mainly for training foreign language talents in order to enhance their understanding of the West. The Jingshi Tongwen Museum, established in 1862, was the first foreign language school in modern China. It hired Westerners as teachers. The earliest batch of Tongwen Museums also included Guangdong Tongwen Museum and Shanghai Guang Dialect Museum, both of which were wellknown foreign language schools at that time. With the development of the Westernization Movement, the Westernization School has successively established schools focusing on cultivating technical talents, including Shanghai Jiangnan Manufacturing Bureau, Fuzhou Shipping Bureau, Tianjin Naval Academy, and Beiyang Medical School. The Westernization Academy trains specialized talents required for Westernization activities, with obvious professionalism, which has laid the foundation for the development of vocational education in modern China.

## 3. The new school in the Westernization Period

Knight Biggerstaff divides the new schools founded between 1861 and 1894 into seven types: schools for training translators and foreign affairs professionals; schools for training engineers and technical workers for new shipyards and arsenals; and training for new navy pilots and engineers the navy school; the military equipment school for training officers; the school for training telegraph managers; the navy and army medical school; the mining school [1]. The most typical of them are the Jingshi Tongwen Museum, which trains translators and diplomats, the Shanghai Cantonese Dialect Museum, and the Fuzhou Shipping Academy, which trains naval officers. Although these schools were mainly based on the feudal program and permanent names, and restricted by the imperial examination system, their fundamental purpose was to maintain feudal rule, however, they cultivated a large number of diplomatic talents in diplomacy and culture, and introduced Western learning and Western arts. Lay a solid foundation for the education reform in the early 20th century.

### 3.1. Jingshi Tongwen Museum

Jingshi Tongwenguan, also known as Tongwenguan, is the first modern school run by the government [1]. Yi xin, Wen Xiang and others proposed that the reason for the establishment of a foreign language school is that Chinese who do not understand foreign conditions and do not understand foreign languages can hardly establish friendly relations with foreign countries. In addition, the unequal treaties signed in the Opium War stipulate that the letter to China is only In a foreign language, this is a humiliation to the Chinese who have always had a sense of superiority. In 1861, the Tongwen Museum was established. At that time, the "Eight-legged scholar" was still popular, and Chinese people affected by traditional education believed that learning foreign languages was a traitorous behavior, so the source of students in Tongwenguan became the primary issue. Therefore, the Prime Minister's Office stipulated that bright young people should be selected from the eight-headed brothers, and excellent graduates should be recruited from Tongwenguan in other places every year. Since it is for the government to train translators, all students in Tongwenguan live on campus and receive government subsidies every year, there is a strict management system for students.

At the beginning of the Tongwenguan, only foreigners taught foreign languages. Later, Chinese teachers also taught mathematics, and Chinese and foreign teachers were paid differently. School funding is provided by the customs, so that the funding of government-run education is guaranteed to a certain extent. There are monthly exams, quarterly exams, and three-year big exams, the big exams and the imperial examinations are held at the same time,students who excel in the exams can be awarded corresponding official positions. Although this is opposed by ultra-conservatives, it can encourage students at the same time, it will also attract freshmen to study. Tongwenguan implements two types of curriculum, the eight-year curriculum focuses on foreign languages, while the five-year curriculum does not include foreign languages, but focuses on arithmetic and science [1]. The management of Tongwenguan is in the hands of foreigners, the American missionary William Alexander Parsons Martin is the chief instructor and manages all academic activities, and Hurd manages the school's funds. Tongwenguan trains professional translators for the government according to the needs of the diplomatic department. Graduates either stay in school to teach or engage in diplomatic translation. It can be seen that this kind of education is clearly targeted and professional.

### 3.2. Shanghai Cantonese Museum

In 1863, Hongzhang Li advocated the establishment of a Tongwen Museum in Shanghai. He believed that there were three main reasons for the establishment of the Shanghai Tongwen Museum. First, because of the lack of translators in diplomacy, China mainly relies on foreign translators and "tongshi" in its diplomacy, due to the ignorance and self-interest of "tongshi",

which often cause misunderstandings, it is necessary to train Chinese translators; second, Shanghai is strategically located, Shanghai is a trade port and a relatively prosperous place, foreigners gather here and there is an environment for learning foreign languages; the third is to cultivate talents in a variety of ways. There are too few Baqi students studying in the Jingshi Academy to meet the needs of the provincial governments with a lot of foreign affairs, so more translation talents should be cultivated [1]. The regulations of the new school formulated by Hongzhang Li stipulate that the students of Shanghai Tongwenguan must be young people under the age of thirteen who have the potential to train. Through the recommendation of officials and gentry, students are required to have a "secondary" foundation before enrolling, and the admission requirements are stricter than those of Beijing Tongwenguan. Therefore, the students of Shanghai Tongwenguan are higher than the students of Jingshi Tongwenguan, which only recruits eight-legged students and does not have the basic requirements of "middle school" for students [5].

In terms of faculty, the foreign language teachers in Shanghai Tongwenguan are both foreigners and Chinese. This is different from Jingshi Tongwenguan, but mathematics is still taught by Chinese. In terms of curriculum, there are Chinese classics, history, literature, arithmetic, English and Chinese writing. After the reorganization of the Shanghai Tongwen Museum, the curriculum has expanded the content of science and technology, and the subjects of the courses far exceed the Jingshi Tongwen Museum. In 1865, the Shanghai Jiangnan Manufacturing Bureau was established. This was the first enterprise that the Chinese government introduced Western machinery to manufacture weapons and shipbuilding. Subsequently, the Shanghai Tongwen Pavilion and the Translation Hall of the Jiangnan Manufacturing Bureau merged [1]. Outstanding graduates of the Cantonese Dialect Museum were sent to the Jingshi Tongwen Museum for further studies. Most of these students were later promoted to important positions, which influenced the spread of new ideas and the reform of Chinese education. A large number of books translated by the Guang Dialect Museum have made many contributions to the introduction of Western scientific and technological knowledge, making its spread in China play an active role, and impacting people's deep-rooted feudal education thoughts.

### 3.3. Fuzhou Shipping Academy

After the Opium War, Britain invaded and occupied many important trading ports in China. British ships played an important role in economic and trade. Zongtang Zuo realized that China must be able to build its own ships and be able to drive it by itself. In 1866, after Zongtang Zuo described his naval shipbuilding plan to the emperor in detail, he began to invest in building a shipyard and hire reliable foreign instructors to teach shipbuilding and navigation techniques, which he believed would promote China's commercial development and strengthen coastal defense. Like other new schools, the Fuzhou Shipping Bureau was opposed by extremely conservative bureaucrats, but Zongtang Zuo still did his best to establish the Shipping Bureau. The Fuzhou Shipping Academy's funding mainly comes from customs duties and lijin taxes. Due to limited funding, its scale did not meet Zongtang Zuo's expectations. The enrollment scope of Shipbuilding Academy is wider than that of other new schools in the past. It recruits people at the grassroots level in society who are willing to learn foreign languages, so there is no difficulty in enrolling students at Fuzhou Shipbuilding Academy. Prosper Marie Giquel divides the school into two parts, the French Literature Class and the English Class; the French Literature Class has two parts, one is for shipbuilding design, which mainly learns shipbuilding knowledge and drawing, and the other is for entertainers who train promising young workers; The English Academy is mainly to train pilots who can drive the ships built by the shipyard, it has three parts: the theory of navigation, the practical science of navigation, and the engine room [1]. The Fuzhou Shipping Academy is a naval school established by the Westernization Movement for self-improvement. The purpose is to train Chinese people who are proficient in shipbuilding and navigating ships. If it is just to build ships, then buying from foreign countries is enough to meet the needs of ships, so The foundation of Fuzhou Shipyard lies in the school, and the school should develop naval technology to strengthen coastal defense. Shipbuilding Academy has introduced western science and technology, and its entire education system breaks through the shackles of traditional education. It is effective in curriculum and teaching reforms. The relatively advanced school-running characteristics provide valuable experience for the development of modern vocational education in China.

In the course, it pays attention to practicality and pertinence. There are two kinds of professional courses and practical courses. The professional courses include knowledge about shipbuilding, driving and marine engineering [8]. Practical courses are practical training. After several years of professional courses, students need to go to the relevant departments of the shipyard for internships and apply the knowledge they have learned to actual work. Students need to engage in shipbuilding-related work after graduation [1]. The content of the course is mainly based on the learning of foreign languages and scientific and technical knowledge, with a wide range of types, which can meet the professional needs of the students in all aspects, strengthen the professional skills training of the students, and lay a solid foundation for the careers that the students will engage in after graduation.

In terms of teaching, the Fuzhou Shipping School is very different from the traditional education that only focuses on the study of classics, history and literature. The school focuses on the combination of theory and practice. For example, after studying theoretical knowledge, students majoring in shipbuilding in the French Literature School must be able to apply this knowledge to practical work. Students need to work in different operating departments of the shipyard for a period of time every day. Before the end of their studies, they need to conduct and graduate. Responsibilities related to professional training at the shipyard [1]. The installation of 80-horsepower and 150-horsepower machines at sea on ships manufactured by shipyards requires engineering students to complete. These professional internships enable students to apply the theories learned in the classroom to practice, exercise their hands-on ability, and enable students to quickly adapt to their occupations after graduation. It can be seen that the shipping school has demonstrated obvious characteristics of vocational education in modern China, and enabled vocational education to occupy an important position in the entire education system.

## 4. Influence of Westernization School

The Westernization School refers to the Western school-running model, imitates the Western school-running system, and introduces Western educational ideas. This is an unprecedented educational change in Chinese history. The development of the Westernization School has promoted the exchange of Chinese and Western cultures, injected new power into Chinese education, and brought new hope for China's educational reform. Most of the students graduating from the Westernization School are engaged in jobs related to their majors. Although Knight Biggerstaff criticized the development of the Westernization School to its later stage, the government has no more jobs to place graduates, and many graduates can only go abroad or engage in other jobs in China. But these students have a wide range of employment, basically they can find jobs.

The guiding ideology of "Secondary school as the body, Western learning for use" has always run through the entire process of the development of the Westernization School. The content of "Secondary School" has always occupied a dominant position. It cultivates talents who serve the feudal bureaucracy, and in essence maintains the feudal autocratic rule. The rescue of the declining late Qing government ultimately ended in failure. During the period of the

Westernization Movement, China was oppressed by Western powers outside, and there were disputes between courts and factions inside. The Westernization School was a product of this change. The school was established by Qing government officials for personal benefit. Therefore, the establishment of the school did not undergo a unified plan and the funds were limited. This led to the fact that the Westernization School was always a small-scale school, and the management was related to the survival of the school. For example, after Zongtang Zuo's death and Baozhen Shen's transfer to Tianjin Naval Academy, Fuzhou Shipping Academy did not receive the attention of the government and naturally did not have enough funds to support the future of the Academy. The Fuzhou Shipbuilding School gradually declined. The Westernization School, which was in the initial stage of cultural exchanges between China and the West, was developed during the initial stage of the conflict between Chinese and Western cultures. It reflected the Chinese people's thinking and exploration of educational issues at that time, and promoted the germination and development of modern Chinese vocational education. Had a direct impact on the subsequent abolition of the imperial examination system. Although the development process of the Westernization Academy was full of hardships and tribulations, and at the same time, with the failure of the Westernization Movement, it had little effect. However, as the embryonic stage of modern Chinese vocational education, the Westernization Academy has been studied for its historical role and still has a guiding significance that cannot be underestimated on the development of vocational education in China at this stage.

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