

# The Vocational Education Ideas of Sun Yat-sen and Their Modern Implications

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## ABSTRACT

Sun Yat-sen devoted his life to the reform of the old Chinese society, and actively devoted himself to the construction and development of the new society, Sun Yat-sen's vocational education thought is reflected in his unique understanding of the purpose, content and method of vocational education, and at the same time, as a practitioner, Sun Yat-sen actively engaged in the practice of vocational education while promoting vocational education. As an important part of Dr. Sun Yat-sen's many thoughts, Dr. Sun Yat-sen's thought on vocational education not only played an important role in promoting the development of education in the Republic of China, but also had a lot to learn from when vigorously advocating vocational education and cultivating various vocational talents.

## KEYWORDS

Sun Yat-sen; Vocational education Ideas; Modern implications

## 1 Introduction

As a great pioneer of China's democratic revolution, Dr. Sun Yat-sen's historical achievements are not only in leading the Revolution of 1911 and ending the feudal monarchy that lasted over two thousand years but also in his profound realization that political system reform alone was insufficient to fundamentally reverse the nation's accumulated poverty and weakness. He believed that the reconstruction of the national economy and the improvement of people's livelihoods must go hand in hand.

Therefore, he emphasized vocational education, hoping to improve the nation's impoverished and weak conditions through its development, thereby promoting the recovery and growth of the national economy. He closely linked the development of vocational education with the country's economic independence and national self-strengthening. This forward-thinking idea not only promoted social development at the time but also remains relevant today for our understanding and advancement of vocational education.

## 2 The Philosophical Foundation of Sun Yat-sen's Vocational Education thought

Dr. Sun Yat-sen's philosophy of vocational education was deeply intertwined with his philosophical principles. He regarded the people's livelihood as "the driving force of social progress," believing that addressing livelihood issues could resolve various societal problems, making it the core of political, economic, and historical endeavors. In his seminal work, "Program for National Reconstruction," he stated, "National development must prioritize people's livelihood." Therefore, regarding the four fundamental needs of the people—clothing, food, housing, and transportation—the government should collaborate with citizens to develop agriculture for food security, promote textile industries for clothing prosperity, construct large-scale housing projects for residential comfort, and improve transportation infrastructure, such as roads and canals, to facilitate public mobility<sup>[1]</sup>.

## 3 Historical Origin and Carrier of Sun Yat-sen's Industrial Plan

### 3.1 Historical origins of Sun Yat-sen's Industrial Plan

Sun Yat-sen's "Industrial Plan" was rooted in the late Qing Dynasty's "Industrial Salvation" ideology and aligned with the development of industrial education in China. Following the defeat in the First Sino-Japanese War, the national crisis deepened, prompting enlightened individuals to reflect profoundly. Kang Youwei first proposed the concept of "industry" and, along with other reformist thinkers, advocated slogans such as "China will surely establish itself as a nation through industry" and "building large factories to promote industrial development." This marked a shift in the focus of national salvation from political reform to deeper economic and educational transformations, laying the ideological foundation for the rise of industrial education.

Driven by this trend, modern industrial education in China originated in 1896 with the establishment of the Sericulture School by Cai Jintai in Gao'an County, shifting the educational goal from cultivating officials to imparting practical agricultural production techniques, directly serving the livelihood economy. In 1904, the promulgation of the "Memorial on the Establishment of School Regulations" drafted by Zhang Zhidong and others formally incorporated industrial education into the national education system for the first time, explicitly establishing three levels of industrial schools—primary, secondary, and higher—parallel to general education. This marked the confirmation of the status of industrial

schools in the education system and elevated the status of industrial education.

At the turn of the 19th and 20th centuries, specialized institutions such as the Hangzhou Sericulture School, Hubei Agricultural School, and Zhili Mining School were established in China to cultivate technical talents in agriculture, mining, and commerce. The establishment of these schools constituted a vivid practice of early industrial education in China, combining Western scientific and technological knowledge with the local industrial needs of China, and striving to nurture new talents capable of advancing industry.

In 1922, the introduction of the New Vocational Education System (renamed "Renxu School System" or the Renxu Education System) officially replaced the long-standing "Industrial Education" with the more contemporary term "Vocational Education". This marked a paradigm shift in educational philosophy, transitioning from industry-specific skill training to aligning education with societal occupational demands. When this people-oriented educational model emerged, it not only gained swift social recognition but also captured the attention of Sun Yat-sen.

### 3.2 The Carrier of Sun Yat-sen's Industrial Plan

After the establishment of the Republic of China, Sun Yat-sen drew upon the experiences of Western industrial powers and proposed the "National Reconstruction Strategy," with an industrial plan at its core. He stated, "China's weakness stems from the poverty of its people.... Now that the republic has just been founded, the revival of industry is the cure for poverty and the most important policy of our time."<sup>[2]</sup>

Between 1917 and 1921, Sun Yat-sen completed his blueprint for China's industrial development, the "National Reconstruction Strategy." The "Industrial Plan (Material Construction)" section systematically outlined his vision for establishing a bourgeois republic. He proposed building a national economic system through three key hubs: constructing the Northwest Railway System around northern ports, developing the Yangtze River waterway, and building the Southwest Railway System around southern ports. These initiatives aimed to harness resources in the northern, central, and southern regions. The railway network, spanning five major systems—central, southeastern, northeastern, and northwestern—connected inland areas with coastal regions. Sun also emphasized the development of both light industries vital to people's livelihoods and heavy industries such as mining and metallurgy as the industrial foundations, creating a comprehensive and coordinated industrial layout. However, Dr. Sun Yat-sen profoundly recognized that modern material development must be undertaken by individuals equipped with contemporary knowledge and skills.

## 4 Sun Yat-sen's Vocational Education Practice

Dr. Sun Yat-sen maintained that addressing people's livelihood issues should not rely on subjective fantasies. He emphasized that economic solutions must be grounded in the analysis of social realities and their evolutionary mechanisms, rather than being swayed by moral sentiments. To achieve this, he advocated implementing concrete economic measures to ensure "the basic needs of clothing and food for all 400 million people in the nation" could be met<sup>[3]</sup>.

### 4.1 Participating in the Formulation of the Renzi Jiawu Educational System

Sun Yat-sen and Mr. Cai Yuanpei, who was serving as the Minister of Education of the Republic of China at the time, jointly participated in formulating China's first capitalist-style educational system, the Renzi Jiawu Educational System. This system not only completely rejected the feudal educational principles of "loyalty to the monarch and reverence for Confucius" from the late Qing Dynasty but also laid the foundation for the modern transformation of China's vocational education at the institutional level. A prominent contribution of this educational system was its clear division of two different types of vocational education paths.

The first category includes specialized institutions. These schools are dedicated to "delivering advanced academic knowledge and cultivating specialized professionals," aiming to develop leaders and key talents for societal advancement. The second category consists of industrial schools. Their core mission is to "provide essential knowledge and skills for agriculture, industry, and commerce," directly engaging with frontline social production to cultivate workers and technicians with practical expertise. These institutions emphasize application and practice, maintaining close ties with local economic and industrial development. Serving as grassroots forces, they enhance national labor literacy and drive industrial advancement.

The "specialization-industry" dual division created a comprehensive system that spanned from higher professional education to practical skills training at the middle and primary levels. It not only established the status of vocational education within the modern national education system for the first time institutionally but also addressed the urgent demand for various construction talents during the early years of the Republic of China. This had a profound historical impact on the evolution of China's vocational education thereafter.

### 4.2 Establishing Various Industrial Schools to Train Professionals

Sun Yat-sen actively established various types of industrial schools, including those focused on agriculture, forestry,

machinery, and railways. He explicitly proposed expanding the scale of agricultural schools by hiring industrialists to teach agricultural and forestry knowledge, such as "the art of cultivation, experimental fields, cultivation methods, and seed varieties." When discussing China's silk weaving industry, Sun Yat-sen mentioned that countries like Italy, France, and Japan had conducted in-depth research on silkworm breeding, spinning, and silk production methods, resulting in numerous inventions and significant improvements. If China wanted to improve its silk weaving industry, it would require promoting systematic mastery of scientific methods throughout the entire process—from seed selection, breeding, disease prevention, to silk reeling—among silkworm farmers. Therefore, it was necessary to establish sericulture schools <sup>[4]</sup>.

Dr. Sun Yat-sen's vision for industrial education was remarkably comprehensive, encompassing transportation infrastructure, commercial and fishing port development, commercial shipping terminal construction, and power generation. The successful implementation of these initiatives required specialized professionals across multiple sectors, making talent cultivation an inseparable part of educational advancement <sup>[5]</sup>.

### **4.3 The Establishment of the Whampoa Military Academy and the National Guangdong University**

In the "University Regulations" established for National Guangdong University, Dr. Sun Yat-sen clearly stated: "The fundamental purpose of universities lies in teaching and researching the ever-evolving academic theories and technologies of the world, adapting to national conditions, promoting their practical applications, thereby advancing social morality and justice while driving the development of material production capabilities." To this day, Sun Yat-sen University continues to uphold the school motto of "broad learning, thorough inquiry, careful thinking, clear discernment, and earnest practice," adhering to the university's guiding principle for its members: "The ocean of knowledge nurtures virtue and wisdom. Graduation marks the beginning. Once the foundation is solid, establish careers and build reputations. Reach the pinnacle of achievement. Serve society's welfare and the nation's glory." During his tenure as Director of the Whampoa Military Academy, Sun Yat-sen envisioned a comprehensive educational plan that pioneered military disciplines including radio technology and aviation. This visionary vocational education system not only met wartime needs but also laid the conceptual foundation for modern vocational education development.

## **5 Main Contents of Sun Yat-sen's Vocational Education Thought**

Sun Yat-sen's approach to vocational education emphasizes the integration with local conditions, enhancing students' practical skills, time management, and innovative abilities, while also broadening their international perspective. The aim is to cultivate vocational talents with international competitiveness.

### **5.1 The Purpose of Vocational Education**

Sun Yat-sen emphasized the development of vocational education in China, a measure not only for the development of China but also as stated in the "Industrial Plan (Material Construction)": "The reason I am so eager is that I wish to make every effort to utilize this unparalleled opportunity to achieve the realization of world permanent peace."<sup>[6]</sup>

Sun Yat-sen believed that if his industrial plan could be realized, "the world as a whole and China as a nation would benefit." The scheme aimed to effectively address the poverty and weakness confronting China at the time, thereby breaking the spheres of influence carved by foreign powers and reshaping the international political and economic landscape. Its long-term goal was to fundamentally resolve the vicious competition between commerce and capital on the global stage and ease the acute contradictions between labor and capital. Meanwhile, after World War I, the economies of countries worldwide were sluggish. "To restore their pre-war economic conditions in the future, it is particularly crucial to develop China's wealth sources, as the poverty of nations cannot be alleviated without this."<sup>[7]</sup>

### **5.2 Contents of Vocational Education**

At the Lingnan Student Welcome Conference held in Guangzhou on December 21, 1923, Sun Yat-sen delivered a speech titled "Students Should Aim for Great Deeds, Not High Offices," stating, "You are the rising talents of the Republic of China. The responsibility to continue building this nation rests with you, and I have great hope for your future." He urged young people to consciously abandon feudal ideologies of "entering school, passing imperial examinations, and becoming Hanlin scholars," advocating instead that serving the people should be their life creed. Sun placed great emphasis on cultivating practical skills, asserting that education should not merely focus on literacy and knowledge transmission but should emphasize "the versatility of hands" and practical application. He repeatedly emphasized that the essence of education lies in enabling students to become "independent citizens" capable of "self-reliance," with "the ability to sustain themselves" being the core of his vocational education philosophy.

Under Sun Yat-sen's advocacy, primary and secondary schools began to strengthen education in scientific knowledge and production techniques. The "Ordinance for Secondary Schools" issued in September 1912 formally established a curriculum system centered on self-cultivation, geography, mathematics, natural history, physics, and chemistry. After the establishment of the Republic of China, practical education in agriculture, industry, commerce, and merchant navigation was intensified. Significant preferential policies were implemented regarding funding and tuition fees to attract young

people to enroll in various vocational schools.

### 5.3 Methods of Vocational Education

#### 5.3.1 Adapt to Local Conditions

Sun Yat-sen advocated that talent development should be rooted in local realities and national conditions, with a focus on employment to empower local industries. Education and healthcare should be tailored to local circumstances and entrusted to local authorities<sup>[8]</sup>. During the Republican era, inspired by Sun Yat-sen's philosophy of vocational education that promoted local development, many regions established specialized industries. Examples include the First Agricultural School in Hubei (now the precursor to Huazhong Agricultural University) and the Yunnan First Industrial School, which specialized in mining and metallurgy. These institutions laid the groundwork for practical education in related fields in China.

#### 5.3.2 Integration of Industry, Academia, Research, Training, and Innovation

Sun Yat-sen's educational philosophy of "promoting learning and nurturing talent" was remarkably clear. He believed that vocational education should break through the "school walls" and establish a socialized system encompassing public lecture halls, libraries, and night schools, providing comprehensive intellectual support for adults. He stated, "Beyond educating youth, we should establish public lecture halls, libraries, and night schools as intellectual cultivation centers for the elderly."<sup>[9]</sup>

#### 5.3.3 Specialized Study to Cultivate International Talents

In his article "How China's Industry Can Develop," Sun Yat-sen proposed an ideal method for cultivating professional talents: schools should be widely established, and overseas students should be sent to various countries for systematic and in-depth study of science and technology. Upon completing their studies, they should intern for several years in relevant factories to ensure their knowledge is not only solid but also refined. Only then can they return home and independently manage various industries successfully. However, under the circumstances of China's accumulated poverty and weakness, where the social economy urgently needed improvement, solving the current problems required practical action. Thus, Sun Yat-sen proposed his second method for vocational education, which was "to widely recruit industrial talents from various countries to create and manage for us."<sup>[10]</sup>

## 6 The Inspiration of Sun Yat-sen's Vocational Education Thought to the Development of Vocational Education in China

Dr. Sun Yat-sen's vocational education philosophy, characterized by its core principles of "practicality, integration of knowledge and action, and service to national development," provides crucial theoretical foundations and practical inspiration for China's vocational education system. This philosophy reminds us that vocational education must closely align with industry demands, strengthen practical skill development, and consistently prioritize serving high-quality economic and social development alongside holistic human development. It holds profound guiding significance for advancing industry-education integration and optimizing talent cultivation models.

### 6.1 Expand the Enrollment Scale of Vocational Colleges and Train a Large Number of Vocational Talents

Sun Yat-sen regarded vocational education as a vital pathway to national prosperity and development. In his national blueprint, he outlined a strategy for achieving industrialization and modernization through vocational education, elevating it to the strategic level of "the foundation of universal education and the cornerstone of industrial development." Today, this visionary concept is being transformed into large-scale educational practices. Statistics show that in 2024, China had 6,862 secondary vocational schools with 4.1833 million enrolled students, while the total student population reached 12.2933 million. Among them, vocational undergraduate programs and higher vocational colleges admitted 109,600 and 679,400 students respectively. The state's strong support for vocational education aligns perfectly with Sun Yat-sen's philosophy, as both emphasize vocational education as the fundamental approach to universal education and industrial advancement—a concept that remains consistent and enduring. Looking ahead, to continue to play the role of vocational education, we should start from the following aspects: consolidate the scale and devote ourselves to improving the quality.

### 6.2 Leveraging Local Characteristic Resources to Develop Local Characteristic Industries

The 2024 "Notice on Strengthening the Construction of City-Level Long-Term Consortiums" (Document No. 20[2024] issued by the Office of the Ministry of Education) emphasizes that vocational education should be rooted in industrial parks, focusing on regional pillar industries to promote mutual growth between industry and education. It advocates for deepening the integration and collaboration, strengthening regional industry-education partnerships, systematically optimizing existing consortium mechanisms, and transforming them into innovative models of industry-education integration and regional development engines. Vocational education must align closely with industrial demands and

serve the needs of the regional economy.<sup>[11]</sup> In this way, we can explore a win-win path where vocational education facilitates regional industrial upgrading, and high-quality industrial development, in turn, enriches the connotation of vocational education.

When advancing the development of municipal industry-education alliances, local governments must select industrial sectors scientifically and precisely as the foundation for the long-term growth of vocational education. This selection should be based on local realities, prioritizing areas with strong development potential, favorable industrial ecosystems, and promising market prospects. Specifically, regions should focus on leveraging their unique local characteristics as the basis for collaboration. Secondly, when vocational colleges and local governments plan the construction of industry-education alliances, they should conduct in-depth industrial research and closely align with regional industrial planning.

### 6.3 Strengthen Communication and Collaboration with Enterprises to Cultivate Highly Skilled Senior Personnel

To optimize the positioning of vocational education, the 20th National Congress of the Communist Party of China proposed promoting the integration of vocational and general education, industry and education, and science and education. This requires schools and enterprises to build a "resource sharing, shared responsibility, and win-win development" community.

Against this backdrop, accelerating the development of a modern vocational education system characterized by "integration, convergence, and synthesis" has become the central task for innovative advancement in higher vocational colleges. This guiding principle charts a clear course for high-quality vocational education development in the new era. Establishing such a system, centered on these three core elements, has undoubtedly become the key to deepening reforms and driving innovation across all higher vocational institutions. As the cornerstone of cultivating specialized talents through industry-education collaboration, this approach has evolved into a vital component of national development strategies.<sup>[12]</sup> Higher vocational colleges should deeply grasp the essence of the concept of "three integration" and integrate it into the whole process and all aspects of running and governing schools.

## 7 Conclusion

As a pioneering educator during China's Republican era, Sun Yat-sen developed a vocational education philosophy rooted in pragmatism. His advocacy for "the unity of knowledge and action" emphasized the critical link between education and national development, proposing that education should serve societal progress and public welfare. These principles not only revitalized social development during his time but also form the theoretical foundation and practical guide for today's efforts to diversify and enhance vocational education. Their enduring relevance continues to inspire the cultivation of high-caliber professionals who meet the demands of our modern era.

### About the Author

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