“Cross-Fertilization” of Education: Influence of Paul Monroe on China’s Educational Development and Reforms in the 1920s

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Abstract: Paul Monroe is widely recognized for his important contributions to the development of the field of international and comparative education. Monroe’s far-reaching impact on education worldwide is best exemplified by his significant influence on modern Chinese education system, which he exerted through extensive fieldwork, lectures, and charity work spanning over three decades. However, Monroe’s legacy in China has often been overshadowed by another giant of his time, John Dewey. This paper aims to re-examine published literature and primary sources and shed light on Monroe’s groundbreaking efforts to improve education in China during the 1920s. Important connections are drawn between Monroe’s comprehensive educational surveys in 1921, the subsequent 1922 national reform, and his long-term commitment in promoting science education in China.

Introduction
The American-Chinese educational exchange has transcended decades throughout revolutions, political ebb and flow, and economic fluctuation. While the cultural and educational give and take is of much discussion and is often attributed to famous philosopher John Dewey, this paper sets out to illustrate the influence of a Dewey contemporary yet lesser known leader, Paul Monroe, and his innovative work in the exchange of ideology and philosophy with Chinese educational policy and development throughout the 1920’s. In a review of published literature and primary sources in both Chinese and English - from Monroe himself and various Chinese scholars who benefitted from his tutelage - connections are drawn between Paul Monroe’s 1921 trip to China, his comprehensive survey on Chinese education, and the subsequent 1922 Educational Reform. Monroe’s progressive stance on school organization, teacher training and pedagogy, and curricular development are examined in light of reforms and the future of educational development in China.

China in the New Republic
The Chinese New Republic was an important turning point for Chinese politics and society. After thousands of years of dynastic rule, the shift to a republic was a revolutionary change in domestic and international Chinese policy. One of the pivotal events that led to this shift during China’s turn of the century was the infamous Boxer Rebellion. Between 1899 to 1901, the Empress Dowager Cixi deflected the public away from civil war to anti-foreign sentiment. The massacre of foreign delegates and civilians led to an indemnity of $335,000,000 in gold at the time (Monroe, 1928, p.154-155). With the death of the Emperor and Empress, China set about restructuring its governance and set about reforms on multiple levels, laying the foundation and scaffolding of the New Republic, but history in the early 1900’s was marked by social and political unrest. This in part was due to political upheaval and tenuous relationships with colonial powers and neighboring countries, but also skepticism concerning political hierarchies and social and educational stratification (Keenan, 1974). The New Culture Movement, led in part by Monroe’s former students Tao Xingzhi, Kuo Bingwen, and Hu Shih, promoted liberal democracy, scientific innovation, and educational equity, with their hallmark protest on May 4th,
1919 – thus the moniker The May Fourth Movement. While intellectuals may have differed in their interpretation of democracy and how to engender democratized education, it was within this turbulence and rapid change that John Dewey and Paul Monroe arrived in China to engage with and study Chinese culture and education (Gu, 2001).

The 1922 National Education Reform was born from the debates of the New Culture Movement and Chinese intellectuals, many of whom had been educated in the United States, who wished to see China’s educational system in step with their sense of modernization and democracy (Wang, 2009). In 1904, China began to differentiate between elementary, secondary, and tertiary education. With the reform, there was a shift to the Renxu School System, or New School System, which extended the duration of schooling and provided a comprehensive, well-rounded curriculum (Yi, 1998). Vocational and science education with practical applications allowed students to engage pre-professionally (Chen & Zhou, 2005; Pepper, 1996).

Many scholars point to John Dewey who instigated the most change in educational approach in the early 1900s (Su, 1995; Zhang & Shesse, 2017). Both Dewey and Monroe were leaders at Teachers College, Columbia University and their visits to China just almost overlapped. Dewey’s visit began in 1919 and lasted for more than two years; one month after Dewey left China, Monroe set out in September 1921 (Gu, 2001). Dewey’s impact can be attributed to his notable influence in educational philosophy, especially pragmatic approaches, yet Paul Monroe's impact can be identified through his own investigations and direct impact on Chinese policy and practice (Zhou & Chen, 2007). It is within this divergence that this paper analyzes Monroe’s influence.

Monroe’s China Connection and Impact of His 1921 Educational Surveys

Paul Monroe was born in North Madison, Indiana on June 7, 1869. He graduated from Franklin College in 1890 with a Bachelor of Science and served as a high school principal in Indiana for four years following. Monroe obtained a Ph.D. from University of Chicago and thus began his post-secondary teaching and administrative career, the bulk of which was spent at Teachers College, Columbia University (Bu, 2019). During his 41-year tenure at Teachers College, Monroe explored a number of different teaching and administrative capacities, such as the establishment of the International Institute in 1923 that engendered conversations around international comparative education and development and shifted Teachers College to think globally about its student body and educational approach (Monroe, 1928b). Monroe’s interest in Chinese education stemmed from this sense of global inquiry and inclusivity; his interactions with Chinese students at Columbia and subsequent visits to China made Monroe an advocate for Chinese education and the collaboration between the U.S. and China.

Between 1913 and 1940, Monroe visited China more than ten times (Zhou and Chen, 2003; Bu, 2019). These firsthand experiences and observations helped Monroe gain a deeper
understanding of the socio-political conditions and challenges the New Republic faced in its educational system. Among these visits, his 1921-1922 trip was the longest and most influential in terms of its scope and impact in educational policy and practice. Monroe arrived in Shanghai on September 5, 1921, embarking on four months of extensive fieldwork across four major regions of China. The main purpose of this trip was to introduce ideas about American progressive education and to conduct large-scale surveys on the current state of education (Chen, Tao, and Hu, 1922; Tao, 1924; Twiss, 1925; Zhou and Chen, 2003; 2007).

Accompanied by the prominent Chinese leaders and former students, including Tao Xingzhi, Kuo Bingwen, and Zhang Poling, Monroe visited more than 200 schools, colleges, and educational organizations in 18 cities and surrounding villages across nine provinces that contributed to the makeup of his surveys (Zhou and Chen, 2003). He also gave more than 60 lectures and attended conferences with influential educational and political leaders. As Tao Xingzhi summarizes, Monroe’s visit exerted “unique significance for the reconstruction of Chinese education...His recommendations, resulting from careful investigations in 1921, have aroused serious deliberation on various educational problems and stimulated especially reforms in secondary education and science teaching” (Tao, 1924, p.102). To conclude his research, Monroe presented his key findings in a conference held in Beijing from December 19th to the 21st, with top national leaders and provincial representatives in attendance (Chen, Tao, and Hu, 1922). Among the wide range of topics discussed in the conference, three critical areas were addressed and are thus highlighted in this review: reforms in school organization, pedagogical issues and teacher training, and curriculum in relation to science education.

School Organization Reforms in Primary and Secondary Education

Prior to 1922, the Chinese educational system was organized with notable diversity among regions, particularly between rural and urban areas. Moreover, secondary education was detached from educational purpose and subsequent higher education (Chen, Tao, and Hu, 1922). To address these prominent issues, Monroe offered detailed proposals based on his findings from the 1921 educational surveys. The 1924 China Education Yearbook highlights the policies set by the 1922 Education Reform, and how Monroe's recommendations had greatly influenced the formation of the new school system (Tao, 1924).

One of the main debates concerning primary education among Chinese educators was whether it should be condensed to six years nationwide. In the early 1920s, primary schools consisted of two phases, the lower primary grades (four years) and the higher primary grades (three years). In rural areas, the majority of the students would discontinue their education after completion of lower primary grades (Monroe, 1922). Monroe proposed two different models for urban and rural areas (see Appendix A), wherein he suggested that urban schools should adopt a six years system so students can efficiently advance to secondary school. Rural schools, then,
would retain the four-plus-three years system as few students would continue onto secondary education (Chen, Tao, and Hu, 1922; Monroe, 1922).

For secondary education, Monroe emphasized student preparation for and transition to higher education. Prior to 1922, the secondary education included four years of schooling while offering a preparatory class in college to assist the transition, however this system did not effectively support the work and life of students after they completed secondary education (Chen, Tao, and Hu, 1922; Monroe, 1922). Based on the re-established goal and existing issues, Monroe proposed a preparatory course for future professional training (Chen, Tao, and Hu, 1922). His proposal suggests extending secondary education to six years and splitting it into two phases: the first three years of lower secondary grades provides general education, while the three years of upper secondary grades serve as a preparatory program for higher education or specialized vocational education (see Appendix A). The vocational training courses train students in specialized subjects such as agriculture, industrial technology, and commerce (Chen, Tao, and Hu, 1922).

**Pedagogical Issues and Teacher Training**

Monroe’s discussion on pedagogy and teacher training inspired Chinese educators to explore modern methodology in these fields. Similar to the issues related to school organization, the main pedagogical concern also centered on secondary education. As Monroe correctly pointed out, the Chinese style of teaching is largely dependent on lecturing, which discouraged students’ initiative and creativity (Chen, Tao, and Hu, 1922). Monroe argued that the true value of learning should be “learning by doing,” and he criticized the serious negative consequences of “learning/knowing but not practicing” (Chen, Tao, and Hu, 1922, p.35). In particular for science education, Monroe recommended that progressive pedagogical approaches, such as “project-based learning” designed by his colleague at Teachers College William Kilpatrick, were more effective as it encouraged students to actively apply what they learned into solving practical problems (Chen, Tao, and Hu, 1922).

In addition to pedagogical methodology, Monroe identified the need for a large number of professionally trained teachers who would be able to bridge the gap between theory and practice in order to serve a potential school-going population of 100 million (Monroe, 1922). Monroe argued for the importance of teachers' morale, aspiration, passion, and dedication to establish teaching as a profession (Chen, Tao, and Hu, 1922). However, teacher training varied greatly based on a teacher’s geographic location; rural areas tended to employ less trained, part-time teachers, while in urban cities like Beijing teacher quantity and quality was vastly better. (Chen, Tao, and Hu, 1922).

To address the problem of teacher quantity, Monroe suggested increasing the number of teacher’s schools to prepare a sufficient number of teachers to facilitate compulsory public
education (Chen, Tao, and Hu, 1922). He also proposed a differentiation focus strategy for training primary education and secondary education teachers, and highlighted the shift of pedagogical approaches from lecturing style to more practical methods, such as “learning-by-doing” and “project-based learning.” The 1922 Educational Reform reflected many of Monroe’s proposals when it came to this method of teacher training (Tao, 1924).

**Curriculum and Science Education**

Throughout his surveys, speeches, and reflections, Monroe was very deliberate to balance between Western education as a guide and Eastern customs of education. Monroe’s thoughts on curriculum were no exception (Chen, Tao, and Hu, 1922). The year 1905 marked the elimination of the traditional examination system and birth of the Ministry of Education, creating a ripe environment for reform, curricular innovation and drawing inspiration from more Western style learning (Monroe, 1928; Pepper, 1996). Tao Xingzhi, one of Monroe’s students, writes around this time: “The subject matter and methods of teaching secondary school subjects, school organization, and administration are all now under examination, criticism, experimentation, and reformulation” (Tao, 1924, p. 121). These examinations ranged from the adoption of Pei Hua (modern standard Chinese) as a more academic medium, to science education reformulation (Tao, 1924).

The empirical evidence collected through Monroe’s extensive surveys revealed an urgent need for educational reforms in curriculum, especially secondary science education. Monroe observed that science was the weakest subject area in secondary education (Chen, Tao and Hu, 1922; Tao, 1924). Two main factors, according to Monroe’s investigation, contributed to the situation: first, teachers relied solely on lecturing and memorization, providing little opportunity for students to actively participate and learn through experimentation and laboratory work. Second, Monroe identified a lack of understanding of fundamental concepts and general scientific thinking. Monroe urged Chinese educators and policymakers to place special emphasis on developing students’ widespread knowledge of science and problem solving. At the national conference in Beijing on December 19-21, 1921, Monroe emphasized repeatedly that the cultivation of scientific spirit and investment in the field of science were crucial for China to achieve not only educational improvement, but more importantly, national progress. In Monroe’s view, it was imperative for the young Republic to strengthen its economic, political, and even military power through science in order to defend itself against foreign exploitation and invasion (Chen, Tao and Hu, 1922).

**Subsequent Efforts of Monroe to Promote Science Education in China**

After returning from his 1921-1922 trip in China, Monroe made concerted efforts to provide further technological and financial support to Chinese education. One of his immediate actions was to recruit his doctoral advisee George Twiss, a Ohio State University professor and
renowned expert in science education, to serve as the Director of Science Education for the 
Chinese National Association for the Advancement of Education. With Monroe’s encouragement 
and guidance, Twiss undertook extensive fieldwork in China from 1922 to 1924, investigating 
the status of science education and developing a comprehensive program for science teaching 
and research (Twiss, 1925). In his 336-page final report published in 1925, Twiss presented the 
most detailed analysis of Chinese science education to date, and provided recommendations for 
the improvement in key areas such as science teaching, textbooks and laboratory manuals, 
experimentation equipment, science teacher training (Twiss, 1925; Tao, 1924).

Another significant contribution made by Monroe to the Chinese education was his 
leadership in establishing the China Foundation for the Promotion of Education and Culture 
(commonly abbreviated as the China Foundation) in 1924. Monroe, together with a group of 
prominent government officials and education leaders, lobbied to Congress to return the 
remaining Boxer indemnity to China. As a result, the bill of the second remission of the Boxer 
indemnity passed on May 7, 1924 (Fan, 1927; Yang, 1991). Monroe revisited China and attended 
the inaugural conference of the China Foundation on September 17, 1924 (Tao, 1924; Fan, 
1927). Following Monroe’s carefully crafted proposal, China and the U.S. jointly formed a board 
of trustees of ten Chinese and five Americans to oversee the usage of over $12 million funds. 
Monroe was elected as the vice chair of the Board and remained in the leadership position for 
twenty years (Yang, 1991).

As the co-founder and enthusiastic supporter of the China Foundation, Monroe played a 
pivotal role in supporting Chinese educational development, especially science education and 
research. The main purposes of the China Foundation, in line with Monroe’s recommendations 
based on his 1921 national surveys, were to promote science education and the application of 
scientific knowledge through research, technical training and public education (Tao, 1924; Fan, 
1927). During the period of 1924 to 1949, the China Foundation provided more than 500 grants 
and other funds to Chinese universities, research institutes, libraries, and cultural organizations 
(Yang, 1991). Wellington Koo, the Minister of Foreign Affairs, at the first Board meeting of the 
China Foundation in 1924, made note of Monroe’s contributions to the Foundation’s success: “In 
conclusion, I thank Dr. Monroe for his success in promoting the remission and his generosity in 
providing us with his experience gleaned from other charitable foundations. The establishment 
of the Foundation to a large extent is the works of Dr. Monroe” (Koo cited in Yang, 1991, p. 18).

Conclusion

Monroe is widely known as a pioneering leader in the field of international and comparative 
education (Bu, 1997; Bu, 2019; Zhou and Chen, 2007). In his writing “Cross Fertilization of 
Culture,” Monroe addresses the rise of internationalization of American education particularly 
through his role as director of the International Institute of Education at Teachers College, 
Columbia University (Monroe, 1928). Founded in 1923 through Rockefeller and Macy family
benefactors, the International Institute attracted talented international students from different parts of the world. As of 1928, 25 percent of students within the Institute were from China. The sentiments expressed in Monroe’s article is reflective of his philosophy in the exchange of educational policy and action: “One large factor in progress has been the transfer of cultural elements from one people to another - the cross fertilization of culture as it were...the traveler who went to a foreign country to obtain and bring his native land a knowledge of the cultural achievements and activities of other peoples, performed a service of which we have but little definite knowledge and no definite appraisal” (Monroe, 1928, p.1). For Monroe, this cross fertilization manifested through his work in China to cultivate a new perspective on the potential of education in a developing context. The 1922 Educational Reform has Monroe’s blueprint indelibly sketched - one that promoted the democracy and accessibility of education in China.

Despite Monroe’s important contributions to the development of education in China, his pioneering work has been overshadowed by his Columbia colleague John Dewey, praised by Chinese scholars as “Western Confucius” (Shan, 2007). In a continuation of this analysis, it is clear that important research gaps remain. Much study on American influence in education pays homage to Dewey’s work, which leaves Monroe’s legacy much less studied and recognized both in China and the U.S. Further research efforts should be made to more thoroughly examine primary sources especially Monroe’s works - speeches, surveys, and research - to determine his impact on Chinese education and international understanding.
References


### Appendix

Comparing education systems: Pre 1922 School System, Monroe’s Proposal, and *Renxu* School System (Monroe, 1922; Tao, 1924)

<table>
<thead>
<tr>
<th>Years</th>
<th>Pre 1922 System</th>
<th>Monroe’s Proposal</th>
<th>Renxu School System</th>
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<tbody>
<tr>
<td>12</td>
<td>Normal school</td>
<td>Upper secondary grades (4–6)</td>
<td>Upper secondary grades (4–6)</td>
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<td>Secondary ed.</td>
<td>Normal school</td>
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<td>Industrial school (A)</td>
<td>Vocational school</td>
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<td>9</td>
<td>Higher primary grades (5~7)</td>
<td>Lower secondary grades (1~3)</td>
<td>Lower secondary grades (1~3)</td>
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<tr>
<td>8</td>
<td>Industrial school (B)</td>
<td>Higher Primary grades (5~6)</td>
<td>Higher primary grades (5~6)</td>
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<td>7</td>
<td>Lower primary grades (1~4)</td>
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