

### Analysis of the Division of Arts and Science Subjects in Ordinary High School in Late Qing Dynasty (1909-1911)

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### Abstract

The division of Arts and Science in China originated from late Qing dynasty, when the Education Department submitted a memorial to the throne *Proposal of Dividing the School Curriculum into Arts and Science* in 1909. Then the two disciplines went through combinations and separations repeatedly over the past 100 years. This paper will investigate the separated education system's evolution history in late Qing dynasty and its resulting drawbacks ever since from a historical perspective. We can not only draw some lessons from the investigation, but also acquire a clearer understanding of the division of Arts and Science subjects when facing the same or contradicting problems nowadays.

**Key words:** Late Qing dynasty; Ordinary high school; Division of arts and science subjects

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### INTRODUCTION

The issue that canceling the division of Arts and Science subjects was feasible and necessary attracted a widely concern and dispute in 2009. Then this issue turned whitehot after the Ministry of education promulgated overall reform of examination and enrollment programs in 2014, which involved "adjusting the examination subjects, combining the Arts and Science courses". The proponents and opponents of the reform policy were of an equal number.

The emergence and development of the controversy had a certain historical law. Accordingly, studying the system of separating Arts and Science in ordinary high school has a practical significance. From a historical point of view, the ordinary high school's division system can be traced back to the late Qing dynasty. In May 1909, the Education Department submitted a memorial to the throne Proposal of Dividing the School Curriculum into Arts and Science, which meant the division reform policy being formally implemented for the first time in China. From 1909 to 1912, the late Qing's "division" system went through formulation, implementation, amendment and its end. Studying the process of the system was of great significance to the successive reform practice, although the system existed just three years like a Flash in the Pan. In view of this, the author analyzed the "division" system's 4 evolution processes and its loopholes and unreasonable points, with the consideration of the educational practice in late Qing dynasty. It will help us to have a clearer recognition of the current controversy of the division of Arts and Science subjects.

## 1. BACKGROUND OF THE DIVISION OF ARTS AND SCIENCE IN LATE QING DYNASTY

"Primary school" and "University" appeared very early in traditional China's education system, while "secondary school" occurred till in modern China with the eastward spread of western experience. As the secondary education system developed in the context of social transformation, it embodied the western influence from germination to the result. Different from the western modern secondary school pattern that school entities appeared at first and then the school system was institutionalized and standardized, the late Qing dynasty developed education system first in the absence of middle school entity models (Wang, 2002, p.21). Due to the lack of middle school entity models, the late Qing dynasty's education system had many drawbacks and had to adjust and reform in order to adapt to complex social situation in modern China.

As China's earliest middle schools were founded in the form of church schools in middle and late 19th century, it had a huge impact on traditional China's education system, adding secondary education as new element into the modern China's education system (Li, 2013, p.25). Afterwards reformists and reformers had proposed reform of China's traditional education, the idea of establishing new schools. A number of new schools of general middle schools' nature, which represented the secondary school's beginning in China, were founded (Xie, 2009, p.20). And the establishment of these new schools had spurred China's secondary education to come into being and flourishing.

At that time, China's secondary education took the way of dispersing function and was divided into general secondary school, industrial school and normal school, separately prepared for further studies, vocational training and teacher training. Such an education system is established on the basis of imitating the Japan's education system. As the Japan's school system was like Germany's, which led China to concern about the Germany's education. In 1905, the Qing Government sent Ministers overseas to study constitutionalism. Five Ministers after returning spoke highly of the Germany's education, insisting that drawing lessons from Japan's education system was inferior to learn from Germany's directly. However, the key point of education in Germany lay in implementing the division of Arts and Science in secondary school. So, China began its educational localization journey on the basis of Germany's "division" system. The division of Arts and Science in ordinary middle school was actually separating the school curriculum into different branches, a measure based on enrollment (Wang, 2002, p.21).

## 2. DEVELOPMENTAL HISTORY OF THE DIVISION OF ARTS AND SCIENCE SUBJECTS IN LATE QING DYNASTY

# 2.1 Proposal and Implementation of the Division of Arts and Science Subjects

In May 1909, Education Department after taking into account national conditions and Germany's experience, submitted a memorial to the throne *Proposal of Dividing the School Curriculum Into Arts and Science*, and discussed in detail the reasons for department instruction which could be summed up in 5 points (Zhu, 1987,

pp.393-395). (a) In contrast to schoolchild, "students' age grew and personal interests differed" in middle school, so they could be divided into two parts, the one "got a wide knowledge of ancient and modern knowledge for the use of governing the nation", while the other "strove for excellence in a specific realm to be prepared for further education or employment". (b) High school course was limited to five years. After graduation, "students who did not proceed to a higher education got improvement in knowledge, ethics and other aspects"; others aspiring for further studies also had different pursuits in Arts and Science. So the undivided instruction of Arts and Science for the latter students had great adverse effects. (c) "Chinese characters were so difficult, combined with science being extremely onerous", hardly anyone could be proficient in both sides of Arts and Science within five years, which resulted in the students' studying burden heavier. (d) Through the field investigation of provincial middle school students' graduate scores, the phenomenon of unbalanced learning of different subjects was universal. "Some students were better at literature, while the others seemed more outstanding in science." Department instruction would therefore encourage them to take full advantages of efforts in different subjects respectively. (e) Tracing the origin of department instruction, we found that division education had existed in China for a long time. In the Song Dynasty, Minister Hu Yuan separated the scholars into different studios, and thus acquired more achievements than others. Correspondingly, Germany's academic prosperity also lay in the division of Arts and Science in the secondary school's education system. By tracing the roots, Scholars more clearly recognized the importance of department instruction, betting on more eyes to it.

According to the Memorial School Regulations issued by the late Qing government, the Arts and Science was divided into 12 courses including morality cultivation, "Reading and Instructing Classics", Chinese Literature, Foreign Languages, History, Geography, Mathematics, Natural History, Physics and Chemistry, Law and Finance, Drawing, Gymnastics. What's more, the courses were separated into the core curriculum and common course as the different emphases between Arts and Science. Time spending on the core curriculum was longer than the common course. The Liberal Arts set the "Reading and Instructing Classics", Chinese Literature, Foreign Languages, History and Geography as the core curriculum, whereas Foreign Languages, Mathematics, Physics and Chemistry and Natural History were regarded as the core curriculum in science. The setting method "expanded scientific knowledge of the students who majored in Arts of the mathematics course and the Arts knowledge of the students who specialized in science by 'Reading and Instructing Classics'" (Zhu, 1987, pp.393-395). This measure had a profound impact on both current high school students and long-term development of education. And this reform actually was a large scale change in the secondary school system and opened the precedent of the division of Arts and Science in China.

In July 1909, Education Department regulated that TiXueShi (Provincial education Chief in late Oing dynasty) "reported in detail the implementation status of the division education system within three months" (Li, Qi, & Qian, 1991, p.287). After a period of time, Education Department urged once again that "the implementation status should be reported at the end of the year" (Ibid.). However, the schools in some provinces didn't fully comply with the Education Department's regulations implementing the division of Arts and Science in a studio, most of which set Arts course or Science course separately, because the late Oing Government's authority and political effectiveness reduced and each province faced the problems of the shortage of teachers and funds. Statistics showed that only 11 of 23 middle schools in Zhejiang province in 1909 made a change after the release of the regulations of the division education system. Among the 11 middle schools, only 2 schools "set the Arts course and Science course in a studio at the same time as the regulations", with "5 of which just developing the Arts" and the rest 4 "setting Science course merely". (Ibid.) What's amazing, Tixueshi of Zhili (an area in the late Qing dynasty) province didn't follow the regulations, but instead submitted a memorial to the throne Adjusting the Regulations of Dividing the School Curriculum Into Arts and Science in 1910. Tixueshi analyzed the reasons why the division reform couldn't accommodate the China's education system, and gave advice on the improvement methods and plans.

Generally speaking, the division system of the Arts and Science appeared a multitude of problems during the implementation process and people's opinions varied in different regions. Cai Yuanpei (the Principal of Peking University) said that it had many disadvantages when talking about the division system of the Arts and Science. To begin with, each province established Arts middle schools in succession but hardly any science middle schools under the consideration of the shortage of teachers and funds. What's more, the colleges specialized in science, medical, engineering and agriculture could hardly recruit qualified students for the lack of science middle schools. Meanwhile, Liberal Arts graduates became unable to adapt to the new age of science being power due to the lack of scientific knowledge. In a word, the implementation results did not meet expectations.

# 2.2 Revision of the Division System of Arts and Science Subjects

Given above situation, the late Qing Government promulgated in January 1911 a memorial to the throne *Revision of Dividing the School Curriculum Into Arts and Science* (Zhu, 1987, pp.401-408) which was submitted by the Education Department. The revision policy took into account the provincial reports and local circumstances, summarized the views of all parties including views from library editors of the Education Department, and explained several reasons of the Curriculum's revision from three aspects as revision degree of the division regulations reset, equipment being flexible and the circumstances took into consideration. Firstly, the teachers entered a higher normal school from primary normal school and then left to teach at school after graduation, which was different from the student's education experience. And because of the different education experience, teachers knew little about ordinary middle school students' knowledge levels and could hardly grasp the content of courses and teaching degrees. Secondly, the division regulations resulted in students' transferring between Liberal Arts and Science in the future becoming difficult. What's worse, "specializing in one subject leaded to the students' basic knowledge incomplete", which failed to meet the nation's requirements of developing "common knowledge". "The classroom and equipment would not be enough" if in accordance with the regulations of the Education Department as the equipment especially the physicchemical test equipment needed more after the division of the Arts and Science, which worsened the situation in barren areas and probably would hinder education's development if not processing properly.

After the revision, the Arts and Science course closed the gap. In the Liberal Arts course, the weekly class hours as "Reading and Instructing Classics" and Chinese Literature were reduced but the number of lessons of Mathematics and Natural History was increased. While the Science course being the exact opposite, the lessons of Liberal Arts courses like "Reading and Instructing Classics", Chinese Literature, History and Geography were increased but the lessons of Natural History and Manual Program were reduced or even canceled. This would help students construct in general knowledge due to the two courses' gap narrowed and students' exchanging between two subjects becoming more convenient.

## 2.3 The Canceling and Reasons Analysis of the Division System of Arts and Science

Due to various reasons, the division policy of the Arts and Science was implemented only to a certain extent and was canceled with the demise of the Qing government. In January 1912, the Republic of China Government promulgated *the Interim Regulations on General Education*, regulating secondary schools to implement general education and merged course of Arts and Science, which indicated that the late Qing dynasty's division policy went to end completely.

The late Qing dynasty's division system of Arts and Science course lasted only 3 years from 1909 to 1912, during which all disputes existed and implementing results failed to meet expectations. The trend is not only because the Government's effectiveness and authority had been greatly reduced and the provinces didn't obey the imperial edicts (an imperial edict is a writ in the name of an emperor), but also the provisions itself had many problems early in the implementation which was the core factor. There are many reasons for its cancellation which could be summarized into three points.

Firstly, "students' basics were not enriched and perfect" (Anmymous, 1909, pp.5-18), because the division time of the Arts and Science was too early. After the division, curricula focused more on core subject knowledge but ignored other basic knowledge, which brought about a series of problems as the unilateral knowledge or lack of common sense. Student's irrational knowledge structure seriously affected the students' cultivation of the structural thinking and thinking mode, which was not conducive to the students' all-round development and improving their overall quality, even harmful to the improvement of quality of the whole nation in the long term.

In addition, higher requirements for middle schools were put forward after the division of Arts and Science thus the original faculty, teaching equipment and funds had been unable to meet new demand. Just in terms of teaching funds, in 1909, there were insufficient funds for one-third middle schools in Zhili Province and about three-fourths middle schools in Anhui Province (Lü, 1999, p.185)

Thirdly, students in middle school were too young to make a wise choice between the two different subjects. As the knowledge gap between Arts and Science being extremely large, students' exchanging between two subjects became more difficult after the division, which would "affect the students' lifelong development". So somebody said that "a student's future direction had been fixed once entering the middle school" (1909, pp.5-18).

Throughout the policy of the division of Arts and Science, we may find that although it exists like a Flash in the Pan, it still made history of the division of Arts and Science in modern China, leaving a significant chapter in the development of modern education. Arnold J. Toynbee, a British historian, said "Human lived in the depth of time, and Actions happening now not only predicted the future occurrence, but also were based on the past behavior." (Tian & Jin, 1982, p.142) Thus, in order to guarantee the reform progress of the existing curriculum going on smoothly, we should gain some experience from the curriculum reform policy in late Qing dynasty.

### CONCLUSION AND ENLIGHTENMENT

A. Separation or Not Is the Product of Certain Social, Political and Economic Culture.

Separation issues as part of curriculum reform were generated by certain social, historical and cultural background. Whether to divide every time was regulated by the nation in the form of policies and decrees in order to meet the requirements of specific political, economic and cultural development. Modern western culture introduced into China in large quantities led to the decline of Confucianism as the core of Chinese traditional culture. Along with the dissemination level of western culture from the artifacts to institutional and cultural concept, China's curriculum reform began taking Germany's secondary education as blueprint. And it was in such a social circumstances that late Oing Government formulated the division policy. But as the times developed and requirements for people's overall quality and abilities became more sophisticated and high, it is clear that the separation policy could not adapt to the fast-growing social demands for talents again. In 21st century, with the raise of the slogan "deepening educational reform and promoting the quality-oriented education", the boundaries between Arts and Science subjects in China middle school are gradually receding and there is a gradual infiltration and integration of the two branches of Arts and Science. And this combination of Arts and Science subjects is becoming a trend.

B. Enlightenment to Contemporary.

Every discussion and change of the separation policy are not simply the cyclic reversal, but a revised, improvable and historical progress, which is of great significance to the afterward division policy of Arts and Science subjects. The development process of the division policy of Arts and Science subjects in Ordinary High School in late Qing dynasty tells us that in the current educational reform we should not only take into consideration national and social needs, but also take into account the needs of students and knowledge. The simple but inflexible division of Arts and Science subjects can easily lead to the student's knowledge structure irrational, and it contains a strong utilitarian values, which do not match the basic education's purpose of emphasizing the all-round development of human beings. As more and more people are receiving merged subjects of Arts and Science which became the mainstream of social concepts gradually and been adopted by policy makers eventually.

Besides, the implementation of a policy requiring a wide range of supporting facilities which can easily lead to policy failures, the deterioration of ecological environment of education and decrease of the Government's credibility if the facilities cannot keep up with the policy. Late Qing dynasty in Anqing, Anhui Province, government secondary school "established for three years, but it isn't complete or appropriate for school purposes since the house is narrow" (Zhu, 1987, pp.556-557). There are also problems in Public middle school whose "playground equipment, and chemical equipment and specimens are not complete" (Ibid.) in Shanxi province. The late Qing dynasty's division policy of Arts and Science subjects couldn't move a single step for the lack of supporting facilities, and eventually ended in failure. Lessons of

history tell us that the implementation effect will be greatly reduced if relevant policies are formulated under immature conditions of supporting facilities. Currently, it is the gestation period of the "Arts and Science would not separate" policy. Concentrating on surrounding facilities' construction seems not urgent but is "the most important foundational project", and "after the completion of these basic works, the goal of undivided subjects of Arts and Science will achieve without extra efforts." (Ke, Lin, & Lü, 2014, p.33)

Till today, the issue whether to divide the curriculum into Arts and Science subjects is still debated. It could not get a definitive answer in a century because both two sides are of rationality. However, with the rapid development of society, popularization of education and interdisciplinary integration gradually. Governments and societies are beginning to reposition the high school, treating it as a part of basic education. The enrollment rate is no longer the sole criteria for evaluating secondary education and the entrance preparation character is slowly fading in middle school. Conceptual change also prompted the introduction of relevant policies. In 2014, the Ministry of education promulgated overall reform of examination and enrollment programs which involved "adjusting the examination subjects, combining the Arts and Science subjects". This reform will break the line between two branches of Arts and Science, ending its hundred years debating on whether to divide, and will also gradually bring about two subjects' penetration and fusion.

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