

Review and Critique on the New Higher Education Policy Promoting “The First-Class Major Programs” in China

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Abstract

Purpose: After the concepts of first-class universities, first-class research disciplines, and first-class undergraduate education, China’s Ministry of Education (MOE) proposed a new concept of first-class undergraduate major programs and also proposed policy initiatives for relevant selection and funding. This article provides an in-depth analysis of the motives, historical background, policy texts, core concepts, and unintended consequences of the policy and proposes six criticisms.

Design/Approach/Methods: This education policy analysis article uses two research methods. The first is a content analysis that focuses on policy text. The second is comparative and historical research that focuses on the history of the undergraduate education organization model in China and the background of the four first-class concepts.

Findings: This article argues that the first-class major programs in undergraduate education include provincial-level points of these programs, which stealthily narrowed the scope for comparison from potentially the whole world to that of provinces. The policy also essentially strengthened the traditional concept of *zhuanye* as a physical unit and caused unintended consequences in its attempts to cultivate innovative talents and to adjust the *zhuanye* structure.

Originality/Value: This article addresses a new education policy in China and its unintended consequences.

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Keywords

China, higher education, the first-class major program, undergraduate program, *zhuanye*

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An important concept for university education in China is students' *zhuanye* (major subject or specialized field of study). The *Dictionary of Education* states that this concept was translated from Russian and refers to "the various specialized fields in higher education for cultivating students in China and the Soviet Union. It is generally equivalent to a curriculum program as defined by the *International Standard Classification of Education* or a major in universities in the United States" (Gu, 1991, p. 26). This indicates that when graduates use the word *zhuanye* in their personal Curricula Vitae, it is equivalent to referring to their majors.

However, in the previous research, after having examined the organizational model of undergraduate education in China, I found the two terms were dissimilar. Specifically, *zhuanye* refers not only to a program but also includes a faculty organization such as *jiaoyanshi* (teaching and research unit) or *xi* (department) with a similar name. Students' identities are also tied to their *zhuanye*, and those in the same *zhuanye* form a collective. The courses of a specific *zhuanye* are usually taught by teachers who belong to the *jiaoyanshi* or *xi*, and students are very rarely allowed to choose courses conducted by other departments. In essence, *zhuanye* refers to a physical unit in a university (Lu, 2002).

With the reform and opening-up of China's education system, as well as increasing exchanges between China and foreign countries, some Chinese universities have introduced residential colleges as a new organizational model for undergraduate education. An example of this would be the Yuanpei College of Peking University, whose students are allowed to freely choose their *zhuanye* and any course offered by the university. In fact, even interdisciplinary *zhuanye*, such as Philosophy, Politics, and Economics (PPE), are being offered. As far as Yuanpei College is concerned, *zhuanye* refers to a group of courses, or in other words, a program. Explorations of such an organizational model for undergraduate education by Chinese universities have been ongoing for approximately two decades, with some preliminary results on the possibility of organizing *zhuanye* as majors on only a particular set of curricula (Tan et al., 2011).

At present, higher education in China faces two core issues. The first is the lack of high quality, and the second is the shortage of innovative talents. On May 2 and 28, 2018, General Secretary Xi Jinping delivered two important speeches that highlighted the directions for a new cycle of industrial transformation as well as scientific and technological revolution. During the Conference of the Natural Science and Engineering Academicians held on May 28, Xi stated that

Global scientific and technological innovations have entered a period of unprecedented intensity and activity since the beginning of the 21st century. This new cycle of industrial transformation as well as scientific and technological revolution is reshaping the global innovation map and reconstructing the global economic structure. There are accelerated and breakthrough applications for a new generation of information technologies represented by artificial intelligence, quantum information, mobile communication, the Internet of Things, and blockchains. The field of life sciences is also nurturing new transformations represented by synthetic biology, genome editing, brain science, and regenerative medicine . . . There is a growing trend of cross-integration between disciplines, between technologies, and between the natural sciences and the social sciences and humanities . . . (Xi, 2018)

How can higher education reflect the aforementioned trend of cross-integration, and how can innovative talents in such cross-integrated disciplines be cultivated to meet the urgent needs of society?

Following Xi's speeches, the Ministry of Education (MOE) rapidly convened the Working Conference on Undergraduate Education in the New Era. This was held in Chengdu, Sichuan on June 21, 2018. An important document was issued post-conference: *MOE's Opinions on Accelerating the Development of High-Quality Undergraduate Education and Comprehensive Improvements to Abilities for Talent Cultivation* (MOE, 2018). This document is also known as *40 Articles for Higher Education in the New Era* (henceforth, *40 Articles*).

Article 22 of *40 Articles* was in response to the new cycle of industrial transformation as well as scientific and technological revolution.

Article 22. Dynamic adjustments to the *zhuanYe* structure: To deepen the supply-side structural reform of *zhuanYe* in colleges and universities, establish a sound and dynamic *zhuanYe* adjustment mechanism, as well as ensure the upgradation and improvement of *zhuanYe*, incremental optimization, and margin reduction of old *zhuanYe*; to actively plan the development of strategic emerging industries-related *zhuanYe* in integrated circuits, artificial intelligence, cloud computing, big data, cyberspace security, eldercare, and pediatrics, as well as related disciplines that are urgently needed for the people's livelihoods; and to promote the improvement of a mechanism for forecasting talents resource demand and early warning of talents oversupply in all localities, industries, and departments, as well as the formation of a mechanism linking employment with enrollment planning and talent cultivation. (MOE, 2018)

In February 2018, the MOE proposed the new concept of emerging engineering *zhuanYe*. From June 2018 onward, the MOE echoed the need for cross-integrated disciplines by proposing the additional concepts of emerging social science and humanity, emerging medicine, and emerging agriculture *zhuanYe*. These were collectively referred to as the "four emerging *zhuanYe*."

The *Circular on Printing and Coordinating the Overall Plan for Promoting Global First-Class University and Research Discipline* was published by the State Council (The State Council of the

People's Republic of China, 2015). This circular officially introduced the concept of double first-class in higher education into China's higher education system. To prevent double first-class higher education institutions from over-emphasizing scientific research at the expense of undergraduate education, the Vice Minister of Education at the time, Lin Huiqing, specially penned an article titled *Developing a First-Class Undergraduate Education is an Important Task for Double First-Class Higher Education*, which was published in *Guangming Daily* in May 2016. This article introduced the concept of first-class undergraduate education into China's higher education system.

To date, there are three first-class concepts in China's higher education system: first-class universities, first-class research disciplines, and first-class undergraduate education. All these can essentially be supported theoretically. At the policy level, the first-class undergraduate education initiative is mainly implemented through Article 20 of *40 Articles*. However, another new concept appeared in that same article, namely, first-class major programs.

Article 20. Implementation of first-class major programs in undergraduate education through "The Plan of Twenty Thousand" major programs: *Zhuanye* is the basic unit of talent cultivation and the primary framework for developing high-quality undergraduate education and cultivating first-class talents. The goal is to develop a list of first-class major programs in undergraduate education that are future-oriented and can adapt to changing needs, lead development, contain advanced concepts, and are guaranteed to be effective. 10,000 state-level and 10,000 provincial-level first-class major programs in undergraduate education are to be developed to lead and support high-quality undergraduate education. Double first-class higher education institutions should take the lead in developing first-class major programs in undergraduate education; simultaneously, application-oriented universities should integrate their unique educational characteristics while working earnestly to develop first-class major programs in undergraduate education. (MOE, 2018)

On April 2, 2019, the MOE's General Office officially issued a *Circular for the Implementation of First-Class Major Programs in Undergraduate Education* (henceforth, *Circular No. 18*) (MOE, 2019). This was the formal launch of the Ministry's review of 20,000 first-class major programs in undergraduate education nationwide. In this study, an in-depth examination of the documents and contents of this policy revealed several potential issues, which have been elaborated below.

First, the concept of first-class major programs in undergraduate education is a comparative one that contains a scope and objects for comparison. For first-class universities and first-class research disciplines, the current implicit scope for comparison would be all of China or even the world. However, in reality, first-class major programs in undergraduate education include some provincial-level points, which stealthily narrows the scope for comparison from a potentially global or national one to a provincial one. What, then, are the exact objects for comparison? Considering that "major" refers to a group of curricula that may belong to multiple disciplines

and academic fields, how should comparisons be made between the different courses and the knowledge contained therein? How are comparisons to be made to ascertain which of the various major programs are first-class, as opposed to being subpar? Furthermore, a major program comprises both specialized and general education courses, constituting 60–80 and 40–50 credits, respectively. General education courses are conducted by all departments and disciplines of a university and have significant impact on the cultivation of the quality of graduates. This leads to the issue of having to ascertain ways to determine whether the general education curricula are of first-class quality, which is an implicit problem regarding the objects for comparison among various first-class major programs in undergraduate education.

Second, *Circular No. 18* stated that multiple conditions are involved for the review of first-class major programs in undergraduate education. Among these, the fourth condition was “to have an abundant number of faculty members and to continuously strengthen the development of the faculty and basic faculty organizations, extensively carry out research on education and the scholarship of teaching, establish a rational faculty team structure for *zhuanye*, and maintain a high level of quality overall” (MOE, 2019). The supporting documents of this circular included the *Form to Collect Information Regarding the Development Points of First-Class Major Programs in Undergraduate Education at the State Level*. It is mandatory for first-class universities to provide data to the Ministry, including the total number of full-time faculty members, the student–teacher ratio, and a list of renowned faculty members. Such data requirements essentially strengthened the traditional concept that *zhuanye* is a physical unit. Students at Peking University’s PPE *zhuanye* can build their own curriculum and knowledge structure by choosing courses from different departments. Basically, there are no full-time faculty members who only offer courses specifically for a single *zhuanye*. Therefore, it is difficult to accurately calculate the student–teacher ratio for the form.

Third, the “four emerging *zhuanye*” are, in essence, similar to PPE and other interdisciplinary *zhuanye*. *Circular No. 18* emphasized the active promotion of the development of the “four emerging *zhuanye*.” It also emphasized “focused intensification of comprehensive *zhuanye* reform, optimization of the *zhuanye* structure, proactive development of new and emerging *zhuanye*, transformation and upgrade of traditional *zhuanye*, and the creation of specialty and advantageous *zhuanye*” (MOE, 2019). When comparing different first-class major programs in undergraduate education, it is necessary to know the number of full-time faculty members in each. This is hard to determine for the “four emerging *zhuanye*,” making it difficult to accurately calculate student–teacher ratios. The treatment of this inherent contradiction during the actual review process is another issue that has yet to be addressed.

Fourth, in the aforementioned supporting form for *Circular No. 18*, it is mandatory to state the *zhuanye* graduates’ employment or postgraduate education status for the past 3 years, as well as to

track survey results and external evaluations regarding the quality of the graduates. Since the “four emerging *zhuan*ye” are newly launched, only a few universities would have such graduates, rendering it difficult to provide accurate information. There is also an inherent contradiction between the data required by this form and the goal of “active promotion of the development of emerging engineering, emerging social science and humanity, emerging medicine, and emerging agriculture” emphasized in *Circular No. 18*.

Fifth, *Circular No. 18* stated that the review process for first-class major programs in undergraduate education requires “two steps.” To begin with, a major program must first be ascertained as a state-level first-class major program in undergraduate education development point before it can be honored as a first-class major program in undergraduate education. The certification process for first-class major programs in undergraduate education is organized and conducted by the MOE. Only upon completion of certification can the next step be taken, which is to determine the list of state-level first-class major programs in undergraduate education. The *National Standards for Teaching Quality for Zhuan*ye Categories in Universities (henceforth, *National Standards*), published by the MOE in April 2018, are the criteria used for the certification of first-class major programs in undergraduate education.

One method of classifying major programs would be the use of discipline-based standards. Based on this method, the primary categories would include single-discipline, interdisciplinary, and problem-centric major programs.

The “four emerging *zhuan*ye” are primarily interdisciplinary in nature. Such *zhuan*ye involve cross-discipline knowledge and courses that are extremely flexible and diverse. An example of this would be the group of emerging engineering majors developed by Stanford University in the last few years. Known as Computer Science+, the courses encompassed cross-integrated knowledge over a number of subjects; this number increased from 10 to 14 subjects between 2016 and 2019. Peking University’s PPE *zhuan*ye was introduced using Oxford University’s PPE major program and University of Pennsylvania’s PPE major as reference. However, this differs from Yale University’s PPE major program, which includes Philosophy, Politics, and Ethics instead.

Being a formalized standard for quality, the logical basis of the National Standards does not accommodate knowledge and curriculum combinations that contain uncertainties, nor diverse and interdisciplinary *zhuan*ye that utilize imagination. Such standards only lead to knowledge and curricula that are certain and increase the number of students with predictable behavioral outcomes. These are clearly not the creative talents that the “Four emerging *zhuan*ye” are expected to produce. The introductions of the National Standards into the review process for first-class major programs in undergraduate education resulted in a contradiction between its internal logic and the

goal of “active promotion of the development of emerging engineering, emerging social science and humanity, emerging medicine, and emerging agriculture.”

Sixth, although special funds have been established for first-class universities and first-class research discipline initiatives, a separate special fund was also set up for first-class major program initiatives in undergraduate education. *Circular No. 18* stated: “Improvements to funding guarantees: Universities under the jurisdiction of the Central Government should make coordinated use of the Central Government’s budgetary allocations (such as the ‘Special Project for Educational and Teaching Reforms’) and other various resources. All localities should coordinate the higher education funds in their respective local budgets with the funds granted by the Central Government to support the reform and development of local first-class major programs in undergraduate education, so as to support the development of these programs” (MOE, 2019). However, for universities that are already supported by the special funds for first-class universities and initiatives for first-class research disciplines, additional funding for first-class major programs in undergraduate education initiatives may result in resource duplication.

The initial findings of the aforementioned analysis indicate that the concept of first-class major programs in undergraduate education, which was introduced subsequent to first-class universities, first-class research disciplines, and first-class undergraduate education, may be difficult to establish theoretically. The related policies were also found to contain contradictions and issues at various levels of implementation. Universities are forced to participate and compete in first-class major programs in undergraduate education initiatives because it is considered to be a form of honor and has practical significance for future enrollment efforts. However, is it worthwhile to incur both direct and opportunity costs for assessing and determining the 20,000 development points of first-class major programs in undergraduate education? Further reflection and research should be conducted to assess the practical impact that policies regarding the first-class major program in undergraduate education initiatives have on higher education systems.

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