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## ABSTRACT

The vocational education (VE) system in China has been reformed and redeveloped over the past 20 years and now has a rational structure and stages from junior to senior levels that match the industrial sectors and link to regular secondary education. The reform and development of the Chinese VE system was carried out in three stages. The senior secondary VE was reformed beginning in 1980, while active development of the higher education VE system began in 1994. Beginning in 1998, attention was turned to articulation of the VE system to facilitate communication and movement between vocational education and higher education. Today the system of VE in China consists of education in vocational schools and vocational training at three levels. Junior secondary VE schools are located mainly in rural areas where the economy is less developed. In 1999, 900,800 students were enrolled in 1,319 such schools. The senior secondary level (senior high school) is composed of 3,962 specialized schools, 8,317 high schools, 4,098 skilled worker schools, and 5,165 adult specialized schools (in 1999). Higher vocational education (2-3 years) mainly enrolls students from regular high schools and secondary vocational schools, with courses aimed at the training of practice-oriented and craft-oriented talents. Problems faced by the school-based VE system in China include the following: (1) enterprises don't want to cooperate with the VE system; (2) the quality of VE cannot meet the demands of the labor market; and (3) articulation of the VE system is not well established. Further research is needed to improve the development of VE in China. (KC)

# The reform and development of the VE System in China

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The VE system in China has been re-established with the implementation of the reform and open policy and with the economy development in the economy transition process from planning to market. After 20 years of reform, the VE system has been basically established in China. This has a rational structure and different stages from junior to senior level, which match the industrial sectors and link up with regular secondary education. This paper gives a brief introduction to the following aspects of the Chinese VE system:

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

- The nature of VE reform in China
- The details of the VE system in China
- The problems faced by the VE system
- The role of VE research in the development of VE

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## The nature of VE reform in China

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The nature of the VE system reform in China is to make the VE system constantly meet the demand of the labour market. This can be seen in the stages of reform and development of the VE system. Since the 1980s, the reform and development can be divided into three stages.

### Reformation of the senior secondary VE (from 1980 -)

At the beginning of the 1980s, the basis of the VE was very weak; a great number of secondary specialised schools (SSSs) and skilled worker schools (SWSs) had stopped operating and the structure of the secondary VE system was unitary and divorced from the economy. Every year, only a minority of general senior secondary school graduates could receive higher education and millions of graduates needed to be employed, but they had no specialised knowledge and skills. At the same time, industrial sectors urgently needed skilled workers. This situation negatively affected improvements to productivity.

Recognising this situation, the Chinese government has been promulgating a series of documents to adjust the structure of the VE system since 1980. These documents mainly focus on the structural adjustment of the senior secondary VE system.

The *objective* of this adjustment was to significantly increase the percentage of VE in the level of secondary education. The 'Report on the Structural Reform of Secondary Education' (1980) pointed out that the structure of secondary education should be reformed and vocational education be developed so as to enable the senior secondary schools to meet the needs of socialistic modernisation construction. The reform of secondary education structure should focus on the reform of senior secondary education. The 'Decision on the Structural Reform of Education' (1985) clearly laid down that the amount of enrolling new students in senior secondary VE

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schools should be equal to that in senior secondary general education schools within five years.

The *way* to reach this objective was to change some senior general education schools into vocational (or technical) schools. Since then, lots of senior general schools of low quality were changed into vocational high schools.

After ten years of development, the VE gained great achievements. However, totally speaking, it was still very weak; it could not meet the development of economic construction and the development of society. Therefore, the 'Decision on Energetically Developing Vocational and Technical Education' (1991) pointed out that the strategic position and function of the VE should be highly recognised. It was decided to carry out the policy to energetically develop VET. This document put forward specific policies to develop VE and concrete requirements for VE reform.

The 'Outline on Reform and Development of Education in China' was drawn up in 1993. This required governments at various levels to attach great importance to vocational education, make overall plans and energetically develop vocational education. In 1994, 'The suggestion of implementing the 'Outline on Reform and Development of Education in China'' stated that the new developing objective of VE was to increase the percentage of students in VE schools to 60% of the total in the same level schools by 2000.

Before 1994, considerable emphasis had been placed on the development of senior secondary VE.

#### **Actively developing higher VE ( from 1994 -)**

With the development of economy and technology, industries demanded lots of practical personnel of high level that could change design into forefront productions. Only higher VE could cultivate this kind of personnel; not university, nor senior secondary VE. From 1994, the focal point of developing VE was put not only on secondary VE, but also on higher VE.

The National Education Conference was held in June 1994, stressing that higher VE should be developed actively. 'From now on, the scale of higher Education should be broadened, especially the scale 3 year higher education and higher VE should be broadened'.

To carry out the spirit of the National Conference, in October 1994, the State Education Commission dispatched a circular to run higher VE as an experiment within ten secondary specialised schools. This circular required experimental schools to understand their training objective on the basis of analysing the economic construction and job features, and to develop a teaching plan and syllabus on the basis of job analysis, attaching importance to competency and practical teaching. In October 1995, the State Education Commission sent out another circular to improve the reform of vocational universities to make them have more characteristics of higher VE. In December 1995, the State Educational Commission sent out a circular to establish demonstration in vocational universities.

In 1996, 'The Ninth Five-Year Plan for Educational Development and the Long Range Development Program Toward the Year 2010' pointed out that one of the goals of educational development was to moderately expand the scale of higher education, and optimise its structure and further improve the quality and efficiency of educational provision. With regard to the relative weight of degree-level and sub degree-level programs, priority was to be given to the development of sub degree-level programs, especially those catering to the manpower needs of the rural regions, the small and medium-sized enterprises (SMEs), rural enterprises, and the service sector in urban and rural areas, provided either by regular or adult HEIs or by tertiary vocational education institutions.

### **Establishing the flyover of the VE system (from 1998 -)**

Since 1998, great efforts have been made to establish the flyover of the VE system to facilitate communication between vocational education and higher education.

The 'Action Scheme for Invigorating Education Towards the 21<sup>st</sup> Century' (1998) pointed out that actively developing higher vocational education constitutes a pressing demand of national economic development, for it can improve people's scientific and cultural quality and postpone their need for employment. We should gradually develop ways to facilitate communication between vocational education and regular higher education, so that graduates from secondary vocational schools may continue their studies in higher education institutions after passing the qualifying examination.

The 'Decision on Deepening Educational Reform and Promoting Quality Education' (1999) further emphasised that an educational system adapted to the socialistic market economy and the internal law of education should be set up, and that within this VE system, different types of education should be connected and secondary VE graduates should have the opportunities to advance their studies. Vocational technical colleges may adopt a variety of methods to enrol graduates from regular middle schools and secondary vocational schools. Vocational technical college (or vocational college) graduates may continue their studies in regular HEIs after going through certain screening procedures.

After putting the spirit of related VE reform documents into effect for 20 years, the VE system, in which different levels and types are connected, has basically been established. Totally speaking, this VE system is adapted to the market economy and internal law of education.

### **The system of Vocational and Technical Education in China**

The system of vocational education consists of education in vocational schools and vocational training. Vocational education in China is provided at three levels: junior secondary, senior secondary and higher.

Conducted mainly in junior vocational schools - and aimed at training workers, peasants and employees in other sectors with basic professional knowledge and certain professional skills - junior vocational education refers to the vocational and technical education after primary school education, and is a part of the nine-year compulsory education. The students in secondary vocational schools should be

primary school graduates or youth with equivalent cultural knowledge. This schooling lasts 3-4 years. To meet the needs of labour forces for the development of rural economy, junior vocational schools are mainly located in rural areas where the economy is less developed. In 1999, there were 1,319 such schools, with 900,800 students enrolled.

The secondary level mainly refers to the vocational education at the stage of senior high school. This is composed of specialised secondary schools, skill worker schools and vocational high schools. Secondary vocational education plays a guiding role in training manpower with practical skills at primary and secondary levels of various types. *Specialised* secondary schools enrol junior high school graduates with a schooling of usually four years and sometimes three years, with the schooling lasting two years. The basic tasks of these schools are to train secondary-level specialised and technical talents for the forefront of production. All the students should master the basic knowledge, theory and skills of their speciality, in addition to the cultural knowledge required for higher school students.

**Table 1: Data on junior secondary vocational school development in the 90s**  
(10,000 people)

Year	Number of Schools	Enrolment	Number of students at school	Percentage of number of students at school in all students in the same level
1990	1509	19.36	47.88	1.22
1991	1556	23.82	52.33	
1992	1593	26.68	56.38	
1993	1582	26.65	56.24	
1994	1538	28.51	63.05	
1995	1535	28.84	69.69	1.47
1996	1534	30.68	77.52	1.54
1997	1469	30.88	80.89	
1998	1472	34.89	86.70	1.59
1999	1319	33.76	90.08	1.55

**Table 2: Data on senior secondary vocational school development in the 90s**  
(10,000 people)

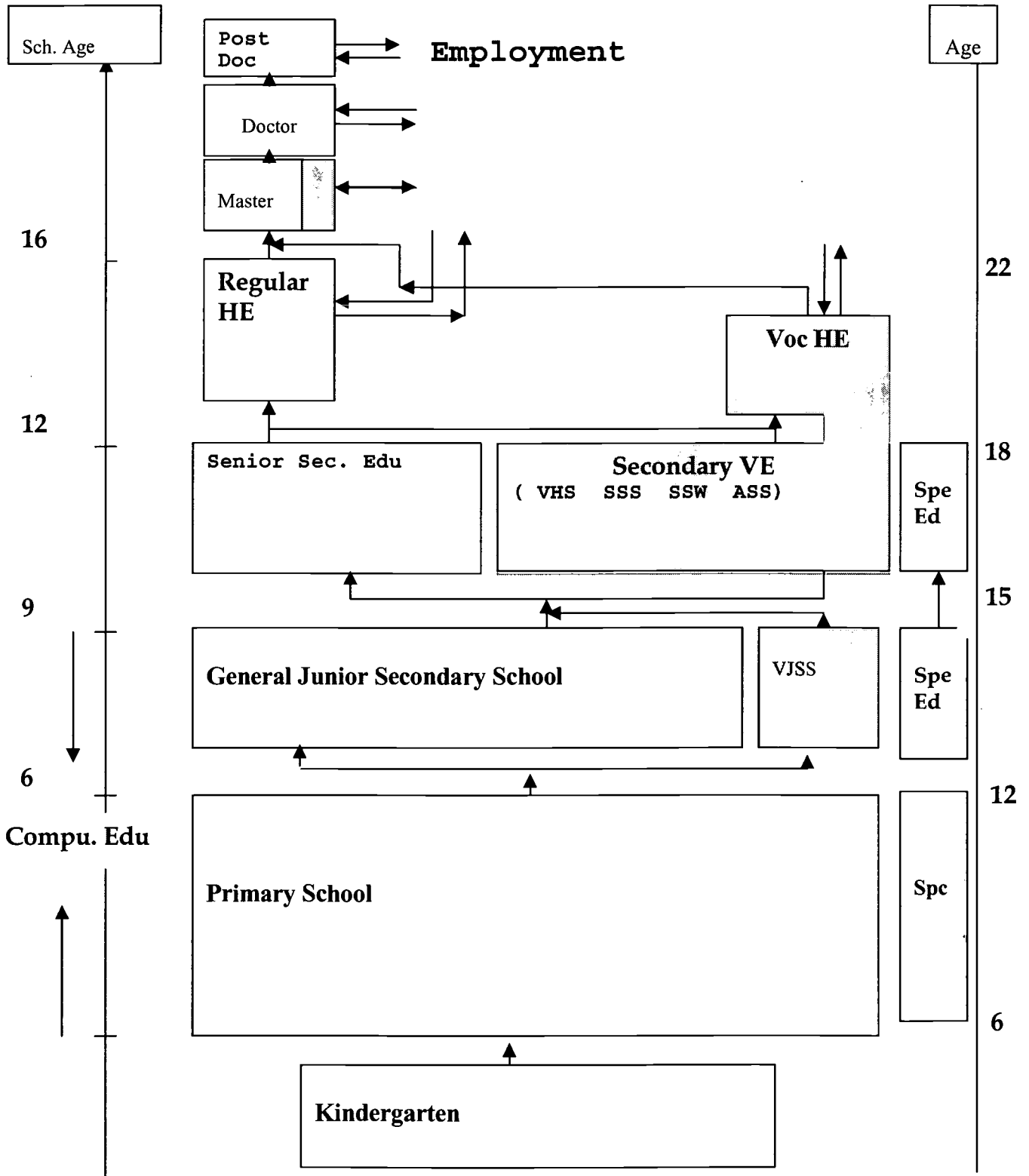
Year	Number of specialised schools	Number of vocational high schools	Number of skilled worker schools	Number of adult specialised schools
1995	4049	8612	4507	
1996	4099	8515	4467	
1997	4143	8578	4395	
1998	4109	8602	4395	5065
1999	3962	8317	4098	5165

Aiming at training secondary-level skill workers, skill worker schools enrol junior high school graduates. This schooling lasts three years. Quite capable of practicing

and operating, their graduates will directly be engaged in production activities. Vocational high school enrolls junior high school graduates, and its schooling lasts three years. Its main task is to train secondary-level practice-oriented talents with comprehensive professional abilities and all-round qualities, directly engaged in the forefront of production, service, technology and management.

With the schooling lasting 2-3 years, higher vocational education mainly enrolls graduates from regular high schools and secondary vocational schools. In recent years, the proportion of graduates from secondary vocational education has been increased, establishing the links between secondary and higher vocational education gradually. Aiming at training secondary and high-level specialised technical and management talents needed in economic construction, higher vocational education emphasises the training of practice-oriented and craft-oriented talents.

# The Education System of P. R China



**Table 3:** Data on development of vocational universities in the 90s

Year	Number of schools	enrolment	Number of students at school	Number of graduates
1990	114	24059	72449	26452
1991	114	22930	63459	24943
1992	85	27053	66219	20315
1993	83	35274	79909	19647
1994	87	35518	93939	21456
1995	86	37050	98300	28863
1996	82	38596	98831	31766
1997	80	44665	112092	29818
1998	101	62751	148561	35480
1999	161	123400	234200	40100

Vocational training of various forms has been playing a more and more important role in vocational education. At present, vocational training is mainly conducted and managed by the departments of education and labour, but enterprises are encouraged to provide vocational training for their own employees.

### **The problems faced by the VE system in China**

Due to historical reasons, the VE system in China is school-based. This has resulted in the system facing the following problems:

#### **Enterprises don't want to cooperate with the VE system**

Under the planned economy, everything related to enterprise belonged to the state; gaining profit or losing money had nothing to do with enterprise itself. But now after the enterprise reform, enterprise has to assume sole responsibility for its profits or losses. Due to historical reasons, state-owned enterprises and collective enterprises have a heavy economic burden; they not only have to pay pensions and medical fees for lots of retired staff and workers, but also have to pay wages for lots of existing workers and staff members. Some of these enterprises are now in a depressed state. At the same time, some enterprise directors cannot recognise the value of cooperating with the VE system - therefore, the enterprises don't want to cooperate.

Due to the unbalance of the relationship of supply and demand in the labour market, and the fact that the related policies have not formed a complete system, these enterprises can easily get the manpower they need in the labour market. This means that they don't need to provide input into the VE system.

Enterprises in labour market belong to the demand side. They know clearly what kind of manpower they need and how much they need. Without the cooperation of enterprises, the VE system cannot meet the demands of the labour market.

#### **The quality of VE could not meet the demands of the labour market**

Due to the following reasons, the quality of VE could not meet the demands of the labour market:



- the reform in the VE system under the transition process is without precedent in history. Without related experiences, it's hard to forecast the related problems during the transition process;
- the theory of socialist market economy has not matured - it's difficult to forecast the problems which might appear;
- the curriculum in VE institutes is academic and subject-based;
- the relationship between VE and enterprise is loose - the demand of enterprises could not rapidly reach the VE system; and
- most VE teachers are underqualified.

#### **Flyover of the VE system is not very fluent**

Although government has the policy to develop higher VE and to establish flyover of the VE system, due to the following practical problems, flyover of the VE system is not very fluent.

- higher general and VE institutes are unwilling to enrol students from secondary VE institutes for the reason that higher education thinks that the quality of students in secondary VE institutes is lower than in general secondary education schools;
- the main content of examination for entering higher VE is general cultural knowledge - this is unfair for the secondary VE students;
- the percentage of secondary VE graduates which could receive higher VE is still very small; and
- the objectives and curricula between secondary VE and higher VE lack continuity.

#### **The role of VE research in the development of VE**

In the process of reforming VE, research has been significant in helping VE reform process in China to a great extent, for it can introduce and research modern VE theory, and improve the efficiency of VE reform.

For instance:

- Competency is emphasised in the process of reform of VE instruction in China. It was introduced and researched first by VE research institutions, and finally accepted by administrative sectors of VE. Now competency has become one of the goals of VE reform.
- New VE teacher qualifications, and abstract research outcomes of VE attach importance to VE teacher professional competency.

Research is translated into reality through the following ways:

- **First, through government policies:** once the value of research achievement is recognised by government, government will take the achievements as a reference when it decides related policies, then research can be put into practice.
- **Second, through people who engage in VE:** people who engage in VE could know and understand VE research achievements, therefore, research achievements can be put into practice.

Though great VE research achievements have been gained in China, there are still many hot topics requiring research in China, eg the links between secondary and higher VE, and the transition from VE to market in the transition process from planning economy to market economy.

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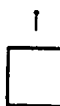
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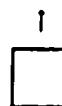
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