

# A Case Study Based Research on the Organization of Vocational Colleges in Chinese Higher Education System

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**ABSTRACT.** *Chinese vocational education plays a very important role to train professional talents to serve the economy and industry development. A case study of Shenzhen Polytechnic is adopted to demonstrate a clear pattern that a Chinese vocational college runs in the higher education system. The student resources, financial resources, programs, guiding philosophies are described to show a picture of modern Chinese vocational colleges.*

**KEYWORDS:** *Vocational college; Shenzhen Polytechnic; Cooperation; Enrollment*

## 1. Introduction

In the past decades, Chinese vocational education experienced great change in its institution number, enrollment, the organization and the mission of institutions [1]. The tertiary vocational education in China is a main branch of full time higher education. According to the data collected in 2012 by the Chinese MOE (Ministry of Education), there were 1297 vocational colleges in China, of which only several serving 3503 students in four-year colleges. They can be administered directly by the MOE & central government agencies, local government, or non-government agencies. In 2012, there were 4 three-year vocational colleges directly administered by Chinese central agencies, 977 of them run by local government department administered by MOE, non-educational department and local enterprises, and 316 of them run by non-government agencies. The full time students who were matriculated in a three-year college must be high school diploma holders. Most vocational colleges can enroll students in different programs, for example, a regular vocational college can enroll most students whose full time study last for three years, part time students in distance courses, fulltime or part time students in the adult continuous education as well as students who receives short term training. Some colleges still keep five-year programs enroll small number of full time students. This paper will take Shenzhen Polytechnic as a case to show how three-year vocational colleges run in their daily educational activities to reflect the philosophies guiding vocational education [1].

Shenzhen Polytechnic (SZPT) is located in Nanshan District of Shenzhen Special Zone, China. It is one of the two earliest three-year vocational colleges founded in 1993, a higher Technical and Vocational Education and Training (TVET) institution invested by the Shenzhen municipal government for full-time education. The cultivation of students with high professional techniques and the ability to solve complex problem in the working post to serve production, construction, management and services is the ultimate mission [2]. In 2006, it was elected by Chinese Ministry of Education as one of the 28 most successful vocational colleges in China.

## **2. Student resources**

Vocational colleges can enroll students all over China but mostly from the local province. Compared to other small vocational colleges, SZPT enjoys a good student resource. In 2013, their matriculation for Guangdong Province was 5804 for those students who took part in the regular Entrance Examination (Gaokao), 855 students for those who took other forms of examinations. As most three-year colleges mainly serve students of local district, SZPT mainly serve the local students in Guangdong province, their enrollment for this province was 6659 in 2013, and 900 for other provinces.

### ***2.1 Junior high school graduates***

All three-year colleges in China can enroll students from different levels. One source of their students are those junior high school graduates, their study in the college will last for 5 years. But the proportion of these students is very low, for example, SZPT enrolled 180 students in 2014 and were limited to the foreign language program, graduates of this program will be competitive to do International Business using a certain foreign language. In the first two years, students study focus on some basic subjects which will enable them to master basic knowledge for further study. Two years later, they will join in the three-year higher education.

### ***2.2 Secondary vocational high school graduates***

The second student group are those secondary vocational high school graduates, whose study in the vocational high school last for 3 years. Their study in SZPT will last for another 3 years. These students should take part in The Entrance Examination special to vocational school students in the year of admission and the student score should meet the requirement of SZPT. The major in their secondary school should match well with that in the higher vocational education. In 2014, student number of this group was 150 and only four programs in SZPT were open to them. Three-year colleges in China which enroll secondary vocational graduates usually have the similar admission requirement for their applicants.

### ***2.3 High school graduates***

The main source of students for all three-year colleges are the high school graduates. They should take part in the Entrance Examination in the year of admission and the score and other qualifications should meet the standard of the college. To be admitted by SZPT the score a student get in the exam usually is not high enough to be enrolled by other comprehensive four-year higher institutions and higher than the requirement of other small and middle-sized vocational three-year colleges.

### ***2.4 Students who don't need to take the Chinese College Entrance Examination***

Since 2017, Chinese tertiary vocational colleges were entitled to enroll a certain percentage of students who don't take the Chinese College Entrance examination (Gaokao). Students who want to study at a vocational college only need to take examinations and interviews designed and held by this college and the offer will be given before the day of Gaokao. SZPT plans to enroll 80 high school graduates and 120 secondary school graduates in its three-year programs and five-year programs in 2019. Whereas, some smaller vocational college enroll more students that don't need to take Gaokao. Hunan College of Information, a middle-sized vocational college in Hunan province, is entitled to enroll 1400 students, about half the new enrollment. The percentage of this type of enrollment will be increased in the near future as the Chinese Ministry of Education decided to enlarge the 2019 vocational college enrollment by 1 million on the original plan. And it is quite possible that in the following years, veterans, workers and farmers will have the opportunity to receive vocational training.

## **3. Four year full time students**

Since 2012 SZPT is qualified to recruit four-year full time students in some programs, students enrolled in these programs whose study lasted for four years, the score they get in the Entrance Examination (Gaokao) is usually much higher than that for three-year students but not high enough to be enrolled in other comprehensive four-year institutions. But the number for this type of students is not big, in 2012 they enrolled 260 in 4 programs and 300 in 2014. Although the number of students enrolled in 4-year vocational colleges is not big, we can predict that there will be more and more students to be enrolled in four-year programs in vocational colleges. When the majority students are 4-year student in a vocational college, we usually say it is a 4-year vocational college. When finish their study these students will be granted bachelor degrees which are equal to that of other graduates get from comprehensive four year colleges. The degree can be divided into Bachelor of Arts and Bachelor of Science.

#### **4. Financial resources**

Most three-year vocational colleges gain financial resources via many different channels. The main part of financial resource is coming from the student's tuition. The tuition is not counted by credit students take as in American higher educational institutions. The amount of tuition for students are the same, no matter they come from the local area or areas outside the province where the college located. All college students are supposed to live in dormitory, and the expense for living has been included in the tuition for ordinary dormitory. Most students in SZPT will pay about 6000 RMB (about 1000 \$) a academic year. The tuition for most three-year vocational students will be around 6000 RMB per year, but the tuition in different programs maybe different. The tuition for students in the international cooperative programs varies from 156,000RMB to 19,000RMB per year. But the tuition for students in international cooperation programs will be much higher, because students in these programs are prepared to continue their further study abroad.

There is no big gap in tuition for students in most programs of three-year vocational colleges and students in most programs of four year higher educationa institutions. They may vary from 3500RMB to 10,000RMB. For example, in Hunan College of Information, a three-year vocational college with about 8,000 students. The tuition vary from program to program, most programs require students pay about 4000RMB, but students enrolled in the Automative Training Center will pay about 8000RMB for a academic year with text book fee included. Students can enjoy campus boarding by paying about 2000RMB a year.

The local and center financial department of Chinese government will provide a large part of support in many forms to public vocational colleges. The salary for faculties who work in the public colleges will be partly paid by the local or center government of China. They also provide grants to the public colleges based on the number of students. Some grants can go directly to some programs to suport research by program applications submitted by researchers who work in the college. Most public colleges can get financial support from the local or higer government, but mostly not so much grant as SZPT do.

#### **5. Programs**

The programs in a three-year vocational college designed are mainly based on the requirement of the local economy and resources of the college. Each college may have its own special programs, for example, some colleges may offer cuisine program but don't have welding program, some have welding program but don't provide cuisine program, some others don't have both but have some other programs. The establishment of a new program lies on the resources of the college and the approvment of the local department of educaton. There are some hot majors offered by a great many colleges, but each college may focuses on different directions in a wide area. There are all 89 programs in 14 schools in SZPT, which almost covered every narrow field of the social economy. Take School of Economics for example, students can major in Accounting, Finance, Business and Law. In school of Medical

Technology and Nursing, there are four specialties, nursing (including nursing, midwifery and dental care), oral medical technology, ophthalmology and optometry technology and rehabilitation technology.

## **6. Certification**

Students whose study last for three years in a vocational college don't get any degree but a diploma as any other three-year higher educational institutions. Usually students in Chinese vocational colleges will get one or more certificates related to their future career. For example, a student majors in accounting may get a certificate which will prove his qualification for working as an accountant. Whether students can get these professional certificates depends on their intelligence and hardship paid in study. The present problem is few certificate types are special to vocational students, certificates granted to a vocational student can be granted to the four-year college or university student with the same ability.

According to the past experience, twenty percent of full time students who study in the Chinese three-year vocational colleges have chance to transit to comprehensive four-year higher institutions. And the transfer is usually limited to the provincial district and the college where students from and university the students transfer to usually should have established a close cooperation between each other. The students who transferred to a 4 year higher educational institution will study for two more academic years to get the bachelor degree which is the same as their peer students.

## **7. Philosophies to guide the vocational education**

In the history of Chinese vocational education, one of the predominant philosophy guiding three-year colleges in China is combining Production (Chan), Education(Xue) and Research(Yan), which is the achievement made by keeping borrowing from other countries and reforming them to fit Chinese economy. It emphasis on the deep cooperation with enterprises and other educational institutions, and focus on serving the local economy construction. The Polytechnic has sought to provide a model of higher vocational and technical education with Chinese characteristics. The educational model they exploring requires vocational colleges closely to cooperate with government, industry and enterprises to promote combining of Production, Education and Research. It mainly focusing on the cultivation of applied professional techniques with high standards and qualifications in lines of production, construction, management and services[3].

Although Chinese vocational college learned a lot from German vocational education and American Community Colleges, these institutions are exploring a way that is serve the local economy and industry[4]. Apart from the professional training, faculty in higher vocational education in China are doing their own research which is closely related to the industry. SZPT undertook 2,528 research programs from different levels of government, achieved 532 patents, and completed

1082 research programs by cooperating with enterprises. SZPT put much emphasis on cooperative education, they established 80 cooperative relationships with foreign higher institutions. They also provided technical support for other 26 higher vocational colleges and 168 secondary vocational institutions in 10 provinces and automatic district of China. ZPT established cooperation relationships with 1921 enterprises. In 2000, it approved by Ministry of Education as the first on-campus national practice base for practice education, which set up a model for other vocational colleges. They also own 26 practice bases and labs in different schools and programs for education. We can say SZPT is an excellent model for other vocational colleges, and they are exploring different cooperation forms with different entities to improve the qualification of vocational education. A majority three-year vocational colleges can't enjoy the advantages of a comparatively developed economy as Shenzhen District, but these colleges are exploring various forms of cooperations with local entities.

SZPT is one of the most successful and a pioneer in higher vocational colleges in China, it enjoys abundant human, financial resources. It set a model for other three-year vocational colleges. Many colleges may be weak in many aspects because a lot of them are derived from secondary vocational school, but they are also trying to follow the philosophy of Combing Production, Education and Research, they are exploring to develop their own specialties and search for different ways to cooperate closely with the industry and other educational institutions to educate professional skilled talents and to serve the local economy.

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