

The Development of Skilled Professionals Training System & Welder Training Mode in China

Dr. Zhenying Liu

Oct. 31th, 2015

1. Current Status of Chinese Skilled Professionals



1.1 By the end of 2014, the number of skilled workers in China reached at 157 million, including highly skilled professionals 41.36 million.

1.2 Until now, more than 100 million people acquired various vocational qualification certificates around the nation.

1.3 In 2013, a total number of 18.39 million people participated in vocational skills identification and 15.37 million people got professional qualification certificates of different levels.

1.4 Every year, the state conducted government subsidized training about 20 million person-time and organized various types of vocational training 20.49 million person-time around the nation.

2. Skilled Professionals Training System in China

2.1 The mode of training system is to take enterprises as the main body, the vocational colleges, such as mechanic colleges as the basis, connect the school education and enterprise cultivation, and combine government promotion and social support.

2.2 Large and medium-size enterprises organize skilled professionals training within the enterprise. Mechanic colleges are the important position of cultivating reserved secondary and senior skilled professionals. College-enterprise cooperation aims to build highly skilled professionals training base together.



2.3 Enterprise Cultivation Training Mode

-- According to available statistics, China has more than 20,000 enterprise training bases ensuring the re-training of skilled professionals.

2.4 Mechanic Colleges Training Mode

-- Taking technician colleges as the leaders, advanced mechanic colleges as the backbone and general mechanic colleges as the basis so as to guarantee over one million skilled professionals enter the labor market annually.

Mechanic Colleges Nationwide		2818
	Technician Colleges	380
	Advanced Mechanic Colleges	340
Enrollment		1.244 Mil.
Students at school		3.39 Mil.
	Senior Technicians, Preparation Technicians and Technician Class	1.085 Mil.
Graduates		1 Mil.
	Employment Rate	97.50%
Conduct Professional Training		5.085 Mil.

**Data by the end of 2014*



3. Skilled Professionals Training System in China

3.1 Established selection and commendation system of skilled professionals

3.1.1 The state established "China Skills Award" and "National Skills Experts" commendation system, which has selected and commended 170 "China Skills Award" winners and 2010 "National Skills Experts".

3.1.2 1286 highly skilled professionals gained the special allowance of the State Council. The good social atmosphere of respecting for labors and skills was primarily formed.

3.2 Established the evaluation system of skilled professionals

3.2.1 The state formed the five levels national professional qualification system consisting of junior, secondary, senior, technician, and senior technician.

3.3 Complex highly skilled professionals (Dual-qualified Talents) are the main body of future industries

3.3.1 The aim of implementing "Dual-qualified Talents" training mode is to make workers be "Engineer & Technician" of "Dual-qualified Talents" with advanced professional technology and strong operation skills.

3.4 Huge market demand of robot operators and robot programmers

3.4.1 The sales number of Chinese industrial robots reached at 57 thousand in 2014, which accounted for about a quarter of the total global market and became the largest industrial robots market in the world for two consecutive years.

3.4.2 The market is in urgent need of skilled professionals who can master the relevant robot operation, maintenance and debugging skills, as well as know the robot-related hardware and software knowledge and possess the skills of automatic integration production and operation.



4. Development of Skilled Professionals Training System in China

4.1 Top-level Design: In June 2014, national vocational education working conference set the strategy of "Vitalizing Nation through Vocational Education"

4.2 National aims for highly skilled professionals cultivation (by 2020)

Total number of national skilled workers	140 Mil.
Highly Skilled Professionals	39 Mil.
Proportion of Skilled Workers, among them:	28%
Senior Technicians	1.8 Mil.
Technicians	8.2 Mil.
Senior Mechanics	29 Mil.
Build national highly skilled professionals training bases	1200
Build national skill masters workshops	about 1000
Proportion of large and medium enterprise involving in professional education	over 80%

5. Excellent Skilled Professionals Stand out in Competition



5.1 43th WorldSkills: China achieved 5 gold medals, 6 silver medals, 3 bronze medals and 12 winning prizes.

5.2 In recent years, China held nearly 200 national first class and second class competitions covering over 300 occupations (types) and more than 10 million workers and students from vocational colleges attended the competitions.

6. "Arc Cup" International Welding Competition



6.1 "Arc Cup" competition is one of the representative activities of skills competitions.

6.2 It is hosted by State-owned Assets Supervision and Administration Commission of the State Council of P. R. of China (SASAC) and has been successfully held for three times.

6.3 2014 Beijing "Arc Cup" International Welding Competition attracted over 500 participants from 22 countries' representatives and 40 state-owned enterprise groups related to welding field.

6.4 The main competition projects include Robot Welding, Gas Tungsten Arc Welding, Shielded Metal Arc Welding, Oxygen Fuel Gas Welding, Finished-product Welding and MAG Welding.

6.5 The concurrent events also include International Conference on MANUTECH & SKILLS and MANUTECH & SKILLS Demonstration Show.

6.6 The aim of the competition is to build a platform for international welding field -- communicate and present skills, discover talents, collect wisdom and burst out innovative ideas.

6.7 "Arc Cup" also intends to promote the improvement of overall qualities and levels of international welding talents and build welding skilled professionals team in China.

