

CTE/TVET Standards' Analysis of APEC Members

By Wang Wenjin
Central Institute of VTE
Ministry of Education
People's Republic of China

Part One Background

- Youth Employment is a challenge laid before the economies worldwide
- While global economy development and trade increased in the early 21st century, the unemployment rate raised
- Young people became the largest victim therein

- Key of sustaining economic development and poverty relief is to fulfill requirements for technical workers
- Post compulsory education including CTE and TVET has become access to value added and high payment jobs in urban manufacturing and service industries
- CTE/TVET plays a special role in helping young people and adults enter into their work

- While demand for knowledge-based skillful workers has greatly increased, demand for traditional technology is decreasing
- All economies need re-evaluate, re-think and adjust their education, vocational training and labor market policies to promote transferring from schools to working
- Facing employment challenge and global labor market competition, schools and institutions in APEC regions should improve CTE and TVET, combining school studies with working environment by bringing along 21st century new competences and skills.

Part Two

Questionnaire Analysis

- China and the Philippines have launched a survey
- aiming at knowing CTE/TVET systems, curriculum and assessment standards, qualification of teachers, problem and policies of the members
- To explore possibilities to promote and deepen cooperation among members

Eleven members have answered
the questionnaire

They are: Peru, Brunei, New Zealand,
Thailand, the Philippines, Japan, PR of
China, Hong Kong China, Chinese Taipei,
USA and Australia.

**We would like to extend our thanks to
all these members.**

I. CTE/TVET Framework

- Students Access to CTE/TVET in Different APEC members at different ages
- Students who access to Tertiary CTE/TVET have more varieties in educational backgrounds and ages
- Length of the program needed to obtain credentials in CTE/TVET varies in the different members

Members	span ages (credentials awarded)		length of programs (credentials awarded)	
	Secondary	Tertiary	Secondary	Tertiary
China	15-18	18-20	3Y	2Y
Brunei	12-16	16-20	3Y	3.5(PD& ND) 2.5HND
New Zealand	15-19	15-59	2-4Y	2-4Y
The Philippines	N/A	17-55	N/A	N/A

Thailand	13-18	18-23	6Y	4Y
USA	14-18	18+	2Y (full time equivalent)	2+
Peru	14-16	19-26	3Y	3Y
Japan	15-17	15-19	1-3Y	1-5Y
Hong Kong, China	14-19	16+	6M-3Y	1-2Y
Chinese Taipei	15-17	18-21	3Y	4Y
Australia	12-18	varies	varies depending on the length of time taken by an individual	

How do the Students Complete Their CTE/TVET Programs?

- In China, Chinese Taipei, Thailand and Brunei, students can choose specialized CTE/TVET institutions such as secondary vocation schools
- Some members offer students vocational courses in the institutions of general education

- In USA, almost all secondary institutions offer CTE courses. 92% of high school graduates take at least 1 course in an occupational area, 21% of high school graduates complete an occupational concentration of 3 or more courses.
- In Peru, secondary level technical education is given to all students in the last years of Basic Education (upper secondary education) through the curricular area “Education for the Workplace”

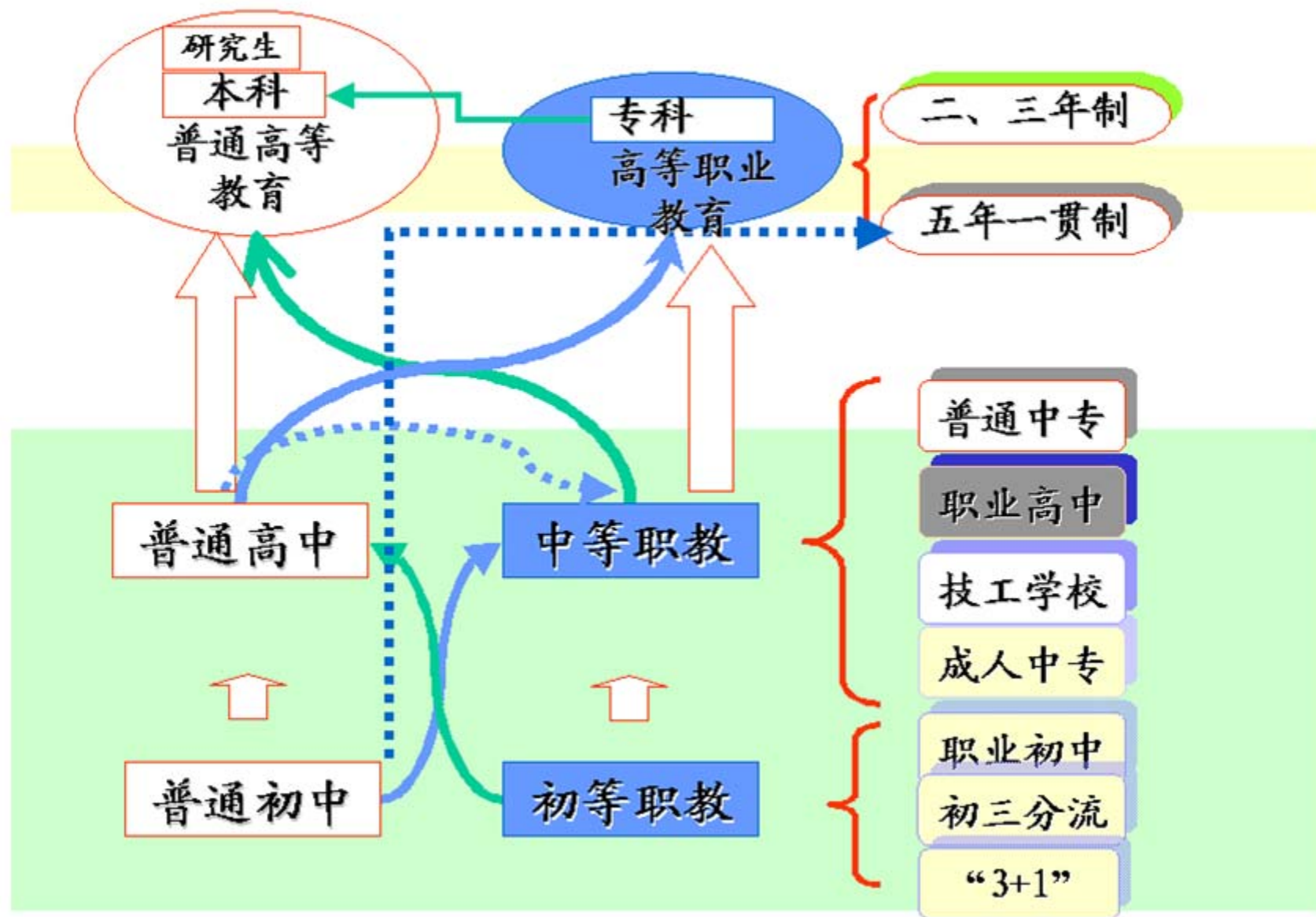
- In New Zealand, secondary schools develop their own program based on student needs, available resources and local interests and needs. Particular Government funding allows schools to provide students with access to vocational training with Tertiary providers and workplace learning with local employers.
- Some high schools in Hong Kong, China and Chinese Taipei also offer CTE/TVET courses

CTE/TVET: A Meta-System in Education System

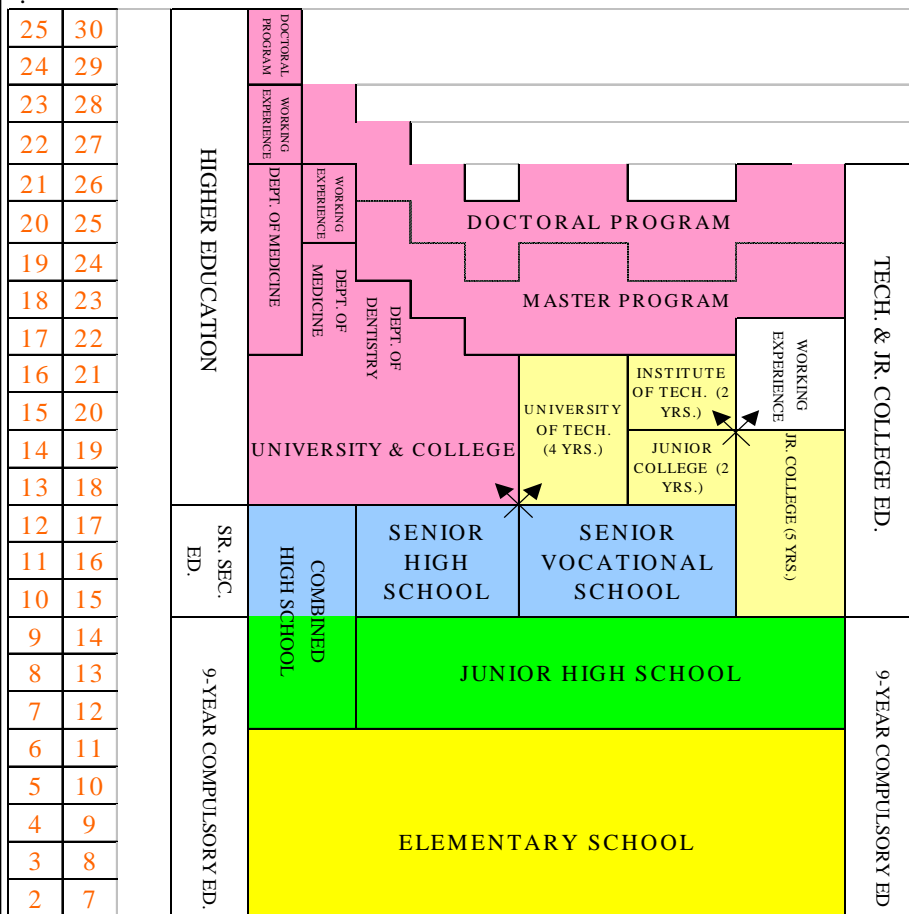
Some members establish specialized TVET institutions like secondary vocational schools in China, Polytechnics and Private Training Establishments in New Zealand. Others offer vocational courses in general educational institutions such as high schools or colleges. Both of the strategies are implemented by different members. [\(systems\)](#)



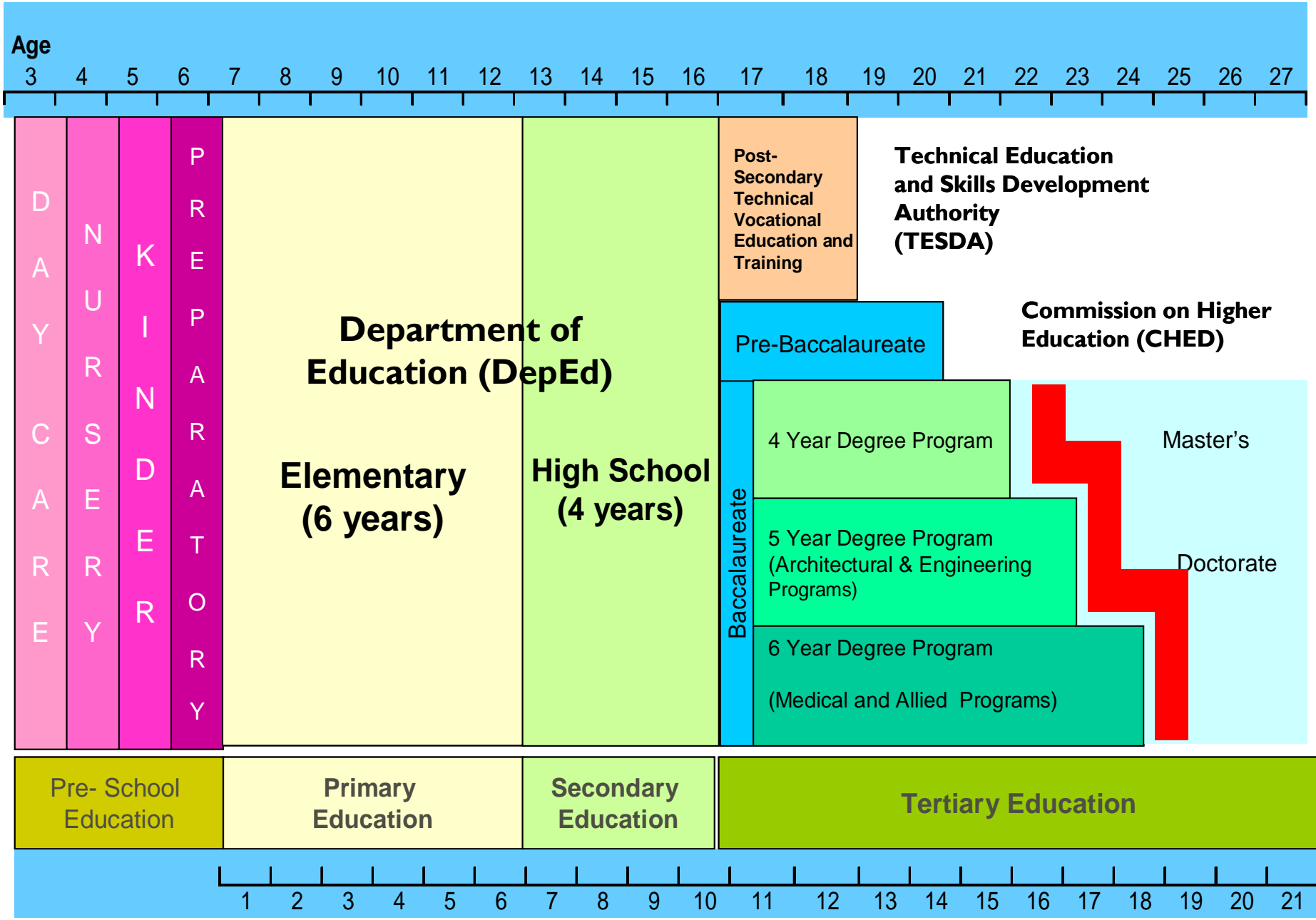
中国教育体系中的职业教育



Chinese Taipei



The Philippines



II. Initial Analysis Of The Standards

- **The Similarities**

all the curricula covers “Broad Skills” (Technical skills, Workplace skills, Employability skills, and Academic knowledge) and “21st Century Competences” (Creativity and innovation skills, Critical thinking/real-world problem solving, ICT skills/literacy, Communication and Collaboration Skills, Ethical and socially responsible attitudes) (all members answer “Yes” or “Some”)

- the CTE/TVET almost link to academic standard (100% in secondary level and 90% in tertiary level)
- When questioning the teacher training or professional development, we found that the great importance is attached to pre-service and in-service training of teachers in 90% questioned members

- **The Differences**

Some members revise standard recently (so that their curriculum are closed to the requirement of industry), and some has not revised for many years (industry didn't satisfied the curriculum)

When questioned “**Do the following sectors lead/participate the development of CTE/TVET standards and assessments?**”, there are various answers

- As far as the similarities and differences are concerned, there are a lot to be researched
- Those doing better at updating curriculum standard and getting stakeholders involved at standard development could share experiences with others
- Members could also share experiences in the improvement of teachers' industrial experience

As far as “21st century competences” is concerned, communications may focus on identification, methodology and approaches (Concerns of employers on employees has shifted from latter’s academic level and technology to broad skills including sense of responsibility, team work, attitude and etc.)

Analysis of 3 Professional Curricula (IT, Tourism and Electronics)

- It is found there exist similarities in standard and content of the above three specialties among members
 - all members have curriculum standard and assessment of students
 - electronic specialty has high requirements for mathematics
 - all the non-English speaking members requiring student to achieve certain level of English

The similarities become the base for our cooperation and research in future, by which, we may explore necessities and possibilities of developing international curriculum standard of certain specialties like IT, Tourism English and service criteria.

- There are also some differences among members concerning curriculum standard and examinations of the 3 specialties mentioned above
- By cooperation and research we may try to share understanding in common for the best curriculum standard. In particular, it is worthy discussing how school-based CTE/TVET fulfills the requirements of industries.

Part Three

Some proposals

The very initial analysis implies it is necessary and possible to make research of CTE/TVET policies and schemes, to find common problems at CTE/TVET development, to increase CTE/TVET output, and to improve CTE/TVET quality, employment status and living standard of young people (esp. women).

Therefore it is suggested APEC members in the coming years carry out cooperation and research in the following aspects:

- Understanding similarity and difference between advanced and less advanced members via analysis of CTE/TVET framework of APEC members
- Promoting CTE/TVET policy development via collecting and distributing schemes available of the member
- Setting a learning platform via case study and experiences sharing for APEC members, esp. those from developing economies to promote CTE/TVET development

Convening symposium to share and disseminate experiences of CTE/TVET on the following topics:

- How to develop capacity oriented curriculum module to meet requirement of market
- Closer contact with employers and get them involved in curriculum reform
- Training and professional development of teachers

- Employment and career guidance and employment capacity development
- Encourage women to engage in non-traditional career and set up their own business and etc
- Setting foundation for future APEC CTE/TVET research and cooperation based on the research this time

Thanks!