

Chapter 18

Advancing Employability and Green Skills Development: Values Education in TVET, the Case of the People's Republic of China

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Introduction

It has been widely recognised that development of employability skills is an essential component of TVET. For example, a survey of CEOs in Australia found that 33.1% of employers consider employability skills to be the most important factor for employing graduates (Australian Industry Group and Deloitte 2009). Similarly, the UK employers, when surveyed by the Qualification and Curriculum Authority, indicate that they value the key skills¹ (Turner 2002). It is true that the lists of employability skills varies across countries²; however, they are all related to general skills valued by employers and the ones that help individuals to gain employment and progress successfully through a working career.

The emergence of a green economy agenda within the framework of sustainable development makes additional demands on the composition of employability skills. A green economy requires development of generic green skills (among other skills) that are in demand in almost any occupation (Pavlova 2011). These generic green

¹ Communication, working with others, problem-solving, improving our own learning, application of numbers, information technology.

² Australian framework identifies eight main employability skills: communication, teamwork, problem-solving, initiative and enterprise, planning and organising, self-management, learning and technology (Australian Chamber of commerce and Industry and Business Council of Australia 2002).

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skills help to prepare the workforce to understand issues of green growth, to interpret environmental legislation and to increase energy and resource efficiency to enable the processes involved in greening the economy. Several generic green skills are presented below as candidates for the generic green skills list; however, research is required to shape the list more accurately (Pavlova 2011):

- Environmental awareness and attitude and willingness to learn about sustainable development, issues and challenges of SD.
- Coordination, management and business skills for holistic and interdisciplinary approaches incorporating economic, social and ecologic objectives.
- Entrepreneurial skills to seize the opportunities of low-carbon technologies.
- Innovation skills to identify opportunities and create new strategies to respond to green challenges.
- *STEM skills*: general understanding of the role of the science, technology, engineering and mathematics contribution to the process of greening economies and societies are currently missing from the lists.
- *Analytical thinking skills*: As business and industry move towards a genuinely sustainable model, it will require that the workforce at *all* levels is able to understand the thinking behind a closed-loop economy and how this differs from the traditional linear model of economic development.

Although, now, generic green skills are not considered as a part of employability skills, we argue that in the nearest future this will be the case as the greener economies require employees capable of meeting the demands of a ‘green framework’. What should be the values that underpin these emerging employability skills that are ‘green inclusive’?

This chapter examines the types of values that could underpin ‘enriched’ employability skills and discusses in some detailed experiences and practices in the People’s Republic of China to illustrate a possible way of including values in TVET to address a green skills agenda.

Moral Values Are of the Key Importance

The importance of addressing values in education has been argued at the political level and supported through research. An international call to focus on values development in TVET was mentioned as early as 1999 in the Recommendations of the Second International Congress on Technical and Vocational Education. As the result of this development, more and more people working in the TVET sector, researching it or developing policies, realise the importance of addressing values through vocational education. For example, the participants of an international virtual conference on TVET and sustainable development³ strongly supported the need to change the teaching paradigm for vocational education that is currently focussed on competency development to emphasise moral values through vocational training

³ The conference attracted more than 100 participants from 50 countries from all UNESCO regions (Pavlova 2007).

(Pavlova 2007). They saw the danger in just preparing students for jobs and ‘forgetting that the same person would have to interact with nature and people in other complex/dynamic aspects of living’ (participant from UK).

Participants from developing countries also expressed the need to change the perception that vocational education is aimed at training technical skills only. They argued that students’ behaviour must be developed through their vocational studies. A participant from India argued that ‘More emphasis should be given on *developing attitudes and knowledge skills rather than technical skills*’. This call to change the educational paradigm of TVET brings it closer to general education that traditionally encompasses the development of values and attitudes as ‘core business’. Another participant, who worked as a member of a non-government organisation in Nigeria, he was developing and implementing projects to help alleviate poverty and improve vocational education, highlighted the fact that after 3 years of work in the country, his team realised that there was a need to introduce ethics and character development into their courses (the module ‘Be a Life model’). This participant stated:

Suddenly we realised that even if we were able to give someone the best food, best clothing, best shelter, best academic/vocational education etc, unless we help him/her to also develop and abide by sound moral principles, we have not done much good for the person.
(in Pavlova 2007)

This international community of practice was actively engaged in a 3-week online discussion on TVET and the kinds of education required for sustainable development. Participants shared their belief that an emphasis on ethics and moral values within TVET is equally important for all countries, especially within the framework of sustainable development that articulates many important values (Pavlova 2009).

The importance of values in TVET, although argued by many, has not been fully explored. What values need to be addressed in TVET? On the basis of literature (e.g. Albert 1968; Feather 1975; Kohlberg 1969; Parsons 1968; Rokeach 1968, 1973; Scheibe 1970; Schwartz 1992, 1994; Habermas 1974; Oser 1994; Gatto 1991; LeFay 2006; Parker et al. 1999), Pavlova (2009) argued that moral values should underpin the educational processes to help students to understand the need for and ability to be involved in the creation of a sustainable future.

Many definitions of values characterise them in terms of one’s beliefs about the desirable. Rokeach (1973) emphasises that a value is a preference as well as a conception of the desirable. Preferences are choices that people make when confronted by a set of alternatives, where the alternatives involve a particular mode of conduct or end state of existence. The beliefs defining values may refer to modes of conduct (*instrumental* values) or to end states of existence (*terminal* values). According to Rokeach, *terminal values* include such concepts as a comfortable, exciting life; a sense of accomplishment; a world of beauty and equality; freedom and happiness; inner harmony; self-respect and social recognition; true friendship; and wisdom. They relate to the visions of what constitutes a desirable future.

Instrumental values encompass such concepts as ambitious, open-minded, capable, helpful, honest, imaginative, intellectual, logical, responsible and self-controlled.

Although most researchers acknowledge a functional relationship between instrumental and noninstrumental values, they see a conceptual advantage in this distinction. Values are not completely stable and they may change throughout life; however, they are stable enough to provide continuity to personal and social existence.

Through TVET programmes, both instrumental and terminal values could be addressed and the relative emphasis on one or another is deeply rooted in the context of each country. It is argued that in the current form, employability skills are related to the competence category of instrumental values. Rokeach (1973) distinguishes between two kinds of instrumental values (modes of conduct, means towards an end): those that have a *moral* focus and those related to *competence* or *self-actualisation*. According to Rokeach, moral values refer to those 'that have an *interpersonal focus* which, when violated, arouse pangs of conscience or feelings of guilt for wrongdoing' (p. 8). They refer mainly to modes of behaviour and 'do not necessarily include values that concern end states of existence' (p. 8). Competence or self-actualisation values refer to a *personal focus*, for behaving logically and intellectually. Although moral and competence kinds of values are both present in educational discourses in TVET, competence values are acknowledged more within the economic imperative of education that often underpins a rationale for TVET. Current employability skills are focusing on self-actualisation (or competence) although the addition of generic green skills would add a moral focus to them.

Within the framework of green economies and sustainable futures, moral values are becoming more and more important. Educators, philosophers and politicians are arguing for that. The 'remoralisation of human space' (Bauman 1995: 192) that led to many issues raised by the sustainability agenda requires an increase in 'moral capacity' (ibid). A large-scale international study by Campbell et al. (1992) concluded that the world needed to be changed to be more sustainable and at the centre of the new vision that are 'caring, just, morally responsible, compassionate and ecologically aware individuals who are committed to collaborative action in order to achieve desirable futures' (p. 38). Habermas (1974) contrasted rational values (effectiveness and economy) to moral values (commitment). He argues that rationality 'cannot itself be placed on the *same* level with all the other values' (p. 259) or prevail above them. Rationality and effectiveness (or such values as technical or economic) must be framed by moral considerations. Moral values relate to 'consideration for the welfare of others, or requirements of our duty' (Jarrett 1991: 14). They focus on 'obligation, the ought and ought-not, on duty and conscience and human virtues' (ibid, p. 14).

An important function value is to provide standards that guide behaviour in a particular way. For most people, values are ordered hierarchically in terms of their relative importance (Rokeach 1973; Schwartz 1992, 1994). Therefore, a moral aspect of values that relates to responsibility, duty and obligation towards humanity and nature needs to frame all learning in TVET and should be at the top of the

values hierarchy among teachers and students in the sector. Together with a *behaviour*, component values are underpinned by some *knowledge* about the means or ends considered by the person to be desirable and involve *affection* or feeling.

Through addressing moral values in TVET, students could make judgements about the type of practices they choose. Practices informed by moral values enable students to estimate positive and negative consequences of economic, social and technological developments that concern human beings immediately or in the future. To consider consequences of particular actions lies in the heart of appropriate teaching and learning in TVET.

Approaches towards moral education in TVET depend on the country's context. For example, in the People's Republic of China and the Russian Federation, values development through TVET have been rooted in socialist ideology where TVET was viewed as playing an important part in value formation compared to many other countries where TVET was oriented purely towards skills development. In both countries TVET curriculum includes general education. Classes such as history, language, geography and other general subjects provide an opportunity for the students to receive TVET qualifications together with general school certificate. After the revolution, the People's Republic of China followed the Russian Federation's example in linking moral with political education. Both countries had a commitment to an integrated personal and social morality through an emphasis on participation and character formation. Moral education was often used interchangeably with such other terms as political and ideological education. The coordinated impact on the individual through all educational institutions and media was aimed at development of specific values in TVET students.

Nowadays the situation has changed and interpretation of moral values is different. In the People's Republic of China, since 1978, a clear trend indicates a partial separation of moral education from politics with an increasing emphasis on personal moral qualities (Lee and Ho 2005) that are getting back to the earlier history, to Chinese traditional morals. In the Russian Federation after the collapse of the Soviet Union, all types of value-based education vanished which created a difficult situation for teachers. Study by Pavlova (2009) demonstrated that TVET teachers have been 'lost' as they did not have any guidance on what values to address (previously they used a framework of patriotism to develop students' values). People in the Russian Federation continue to believe that the state should take an active part in formulating values. The study by Kliucharev and Muckle (2005) demonstrates that 70% of respondents (2,500 participants) believe that it should be a state policy in the sphere of ethics and morality. In the recently published document, *The Concept of Spiritual-Moral Development and Upbringing of the Russian Citizen* (Daniluk et al. 2009), the aims for such education was formulated at the state level to underpin curriculum development and teaching practices.

Currently, in both countries the state continues to play an important role in identifying values to be addressed through education. The next sections explore the ways values are interpreted in the People's Republic of China and discuss how values development is addressed by one TVET institution.

How Values Are Interpreted in the People's Republic of China

Although the relationships between values education and political subjects are close, the core of value education in the country is deeply rooted in the ancient Chinese philosophy (except for the period of the inner chaos called 'great revolution' from 1966 to 1976). Confucianism has the most important impact on Chinese culture; its advocated values, attitudes and social relationships have influenced education development. *Lunyu* (the Analects of Confucius) a historical work by Confucius written more than 2,500 years ago explored and established the basic principles of Confucianism and Chinese traditional values. Throughout history many followers have interpreted these ideas that can be expressed by five Chinese characters: Ren, Yi, Li, Zhi and Xin (Dong, 179BC to 104 BC 1991). Although it is difficult to have an exact translation of these words, the approximation of the meanings is as follows: Benevolence, Justice, Etiquette, Wisdom and Honesty. These commands are formulated to guide peoples' behaviour. They also serve as the guidelines for the development of the harmonious society (Jiang, B. 2007):

- Ren (Benevolence) includes peace, love and tolerance. It describes the peaceful character of the nation. It advocates harmonious relationships between human and nature, a win-win situation among competitors. In the modern PRC it is accepted as a scientific concept of the country's development: holistic, harmonious and in accord with sustainability principles.
- Yi (Justice) – instead of the legal framework in ancient PRC, people thought, behaved and dealt with others in moral ways within the framework of justice. The patriarchal clan system in feudal society was underpinned by morals that were more powerful than any regulations. Although today's legal system (partly learnt from the west) represents justice, morals are not ignored in the People's Republic of China. They are linked to justice.
- Li (Etiquette) is an important component of Chinese culture. The original meaning of etiquette was related to the hierarchical structure of Chinese society: seniors and youngsters, gentry and pariah; everyone had a specific position in society. It was so-called 'father is father, king is king' type of relationships. Nowadays, etiquette has a new important meaning that highlights the need for respect among people. An individual's behaviour in society should be guided by shared social norms (common values)
- Zhi (Wisdom) represents respect to academic studies and learning (intelligence and wisdom are of value). There was a belief in ancient Chinese tradition that educated nobles should not do any craft labour but manage workers: 'Those labouring with brain are to be served, those toiling with brawn are to serve' (Meng, 372DC to 289DC 1984). Consequently craftsman skills were not valued and that has led to many dilemmas in TVET in modern PRC.
- Xin (Honesty) in ancient PRC was the basic credendum of people's behaviour. Children have been learning this from the early ages through children's stories.

These five values represent the depth of Chinese culture that has been reflected through different means including Chinese painting, poem, calligraphy, antique and pottery. Development of appreciation of those arts is considered as a powerful educational tool in developing the true spirit of Chinese traditional culture. In the People's Republic of China, elementary and secondary education have compulsory courses within these areas of art and at the tertiary level these courses are electives. If the terminal/instrumental value framework is applied, Chinese values such as Ren and Zhi could be considered as terminal, the end-state values of existence. Yi, Li and Xin could be interpreted as instrumental values that identify the particular mode of conduct or the means in achieving a desirable future.

Economic changes that transfer an agricultural society into an industrialised society and, later on, allow the economy to become a market-based society have been influencing the traditional value system of Chinese society. These economic changes that bring the benefits of industrial prosperity also bring along an individualisation, the establishment of 'jungle law' that characterised the earlier stages of capital accumulation. This process of 'development' caused many environmental and social problems such as pollution, distrustfulness, cheating, lower quality of products, maximisation of profit and unlimited greed (Wu 2004). Competition is considered as 'God's truth'. The saying 'father is father, king is the king' has no longer been applicable, but a 'winner is the king' became the contemporary slogan. Pirate and tinpot products are often the reality in modern PRC.

A number of strategies have been put forward by the state to resolve the above issues and the fundamental role of education has been fully recognised. The essence of Confucius philosophy is very close to the ideals of a sustainable society and a sustainable future. Therefore, looking back to Chinese traditional culture and values could be viewed as an effective way to foster students' development in that direction. Chinese society needs a change that is in accord with traditional values and this has been recognised more and more by the employers. When companies describe the list of skills required for a particular job, they put integrity, honesty, faithfulness and cooperativeness among the main qualities for any job (Jiang 2008). This demand places specific challenges to the TVET system asking it to integrate Chinese culture and values within the sector as employers in the People's Republic of China request it to develop a moral kind of instrumental values discussed in the previous section.

Case Study: Addressing Values in Zhejiang Technical Institute of Economics

TVET in the People's Republic of China

In the People's Republic of China, TVET constitutes an important component of the nation's educational agenda as well as an important avenue for promoting economic and social development and employment (The People's Congress of

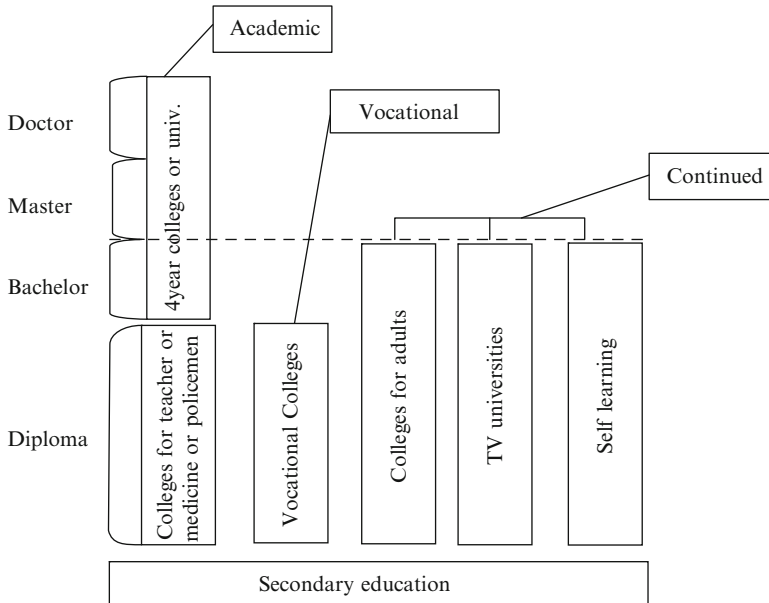


Fig. 18.1 Postsecondary TVET in the People's Republic of China

[the People's Republic of] China 1996). The system of vocational education consists of three levels: junior secondary (3 years), senior secondary (3–4 years) and tertiary (2–3 or 4 years). Junior vocational education starts after primary school education and is a part of the 9-year compulsory education. It is mainly meeting the needs of the less developed rural communities.

The senior secondary TVET is mainly delivered at the senior high school stage through specialised secondary schools (SSS), skill workers schools (SWS) and vocational high schools (VHS). Training is delivered by specialised departments in schools and colleges or through education departments of the companies. Teaching is mainly aimed at developing practical skills. By the end of 2011, there were 13,111 secondary vocational schools in the People's Republic of China.

The postsecondary education system in the People's Republic of China is very big and complex. Secondary school leavers can choose to enter 4-year university or college programmes through the college entrance examination (CEE) if they want to complete their academic education. Another pathway is to go to 3- or 2-year colleges to complete their TVET qualification. For adults, there are adult colleges which provide diploma teaching in a part-time mode. Self-directed learning examination and TV-based universities are popular ways to receive TVET qualifications, particularly for adults. Full-time universities and colleges have a large proportion of TVET students and they are major providers of TVET in the People's Republic of China.

Figure 18.1 shows the structure of postsecondary TVET. By the end of 2011, there were 1,280 tertiary TVET colleges in the People's Republic of China.

Vocational training is mainly conducted and managed by the public departments of Education and Labour at provincial levels, however, the involvement of the private sector is encouraged by the government.

Zhejiang Technical Institute of Economics

Zhejiang Technical Institute of Economics (ZJTIE) is a public TVET college under the leadership of the Department of Education of Zhejiang Province (DOEZJ), and the college is located in the Hangzhou Economic and Technological Development Area (HEDA), Xiasha, Hangzhou, covering an area of 384,000.26 m², and the building area is 219,800 m². It's library contains 667,600 books and accessible online resources. The worth of teaching equipment is valued at RMB30.1 million. Students' facilities are of a high standard. At present, there are nearly 7,500 full-time students and 5,500 part-time students. Over 400 full-time teachers (including over 90 professors and associate professors) and part-time teaching staff that include successful entrepreneurs from well-known enterprises and doctoral tutors from famous universities work at ZJTIE. The college is comprised of a Logistics Department, Economy Department, Business Management Department, Finance and Accounting Department, Economic Information Department, Automobile Application Department, Foundation Department, Humanity Science Department and Physical Education Department. There are 29 majors such as Logistics Management and Marketing. TVET training organised by the college serves the needs of Zhejiang province and the 'Yangtze River Delta'. Its programmes are guided by the principle 'Morality is the essence, Practice is the base' and focus on delivering a quality education through competency-based education and cooperation with the industry.

ZJTIE has been chosen for the case study as it is known in the People's Republic of China for its interpretation of and actions on integrating Chinese culture and TVET. In 2007, the State Ministry of Education presented it with the top award for achievements in campus cultural development. The college established a school-based approach for values development rooted in traditional Chinese culture that includes the establishment of a Chinese Poetry Teaching Center, National Poem Teaching and Culture, Academic and Ancient Chinese Arts Identification Center and ancient art appreciation activities. Although some aspects of ZJTIE experience are unique, it also shares some common approaches for values development in TVET in the People's Republic of China.

In the contemporary the People's Republic of China competency-based, job-oriented education focused on development of occupational knowledge, and skill does not bring enough competitive advantage for TVET graduates. Vocational colleges need to pay attention to the 'whole person development' including moral values and attitudes. Two widespread approaches applied by TVET institutions are the inclusion of political courses in the syllabus and/or the explanation of occupational ethics.

Moral and attitude education is commonly addressed in vocational institutions through the direct value education that is focused on 'scientific concepts of development' (referred above as Ren value). It describes development of the People's

Republic of China as holistic, harmonious and sustainable. For the personal moral development, 'Eight Do's and Eight Don'ts' has been advocated by the central government. They are related to all types of education including TVET (Ministry of Education 2006) and read as follows:

- Love; do not harm the motherland.
- Serve; do not dissuade the people.
- Uphold science; do not be ignorant and unenlightened.
- Work hard; do not be lazy and hate work.
- Be united and help each other; do not gain benefits at the expense of others.
- Be honest and trustworthy, not profit mongering at the expense of your values.
- Be disciplined and law abiding instead of chaotic and lawless.
- Know plain living and hard struggle; do not wallow in luxuries and pleasures.⁴

These principles can be taught through incorporation in the courses such as moral education, language, history; inclusion in the text books; addressing them in class through different approaches such as broadcasting strategy, discussion, explanation; and engaging students in themed activities to deepen students' experiences and understanding.

Another common component of values education in TVET in the People's Republic of China is occupational attitude learning. These classes are specific to students' specialisations and their future occupations. They are usually conducted in the form of a classroom lecture by a teacher or a guest lecture by the employers' representatives or alumni followed by discussions, visits to the work place and discussions of occupational regulations. The occupational attitude learning is also reinforced through internships.

⁴ In comparison the recently adapted values for Australian schooling (DEST 2005) constitutes of nine values. This presents a similar attempt from the government to deal with values in education (although in general education). The following values are identified:

- Care and compassion (care for self and others)
- Doing your best (seek to accomplish something worthy and admirable, try hard, pursue excellence)
- Fair go (pursue and protect the common good where all people are treated fairly for a just society)
- Freedom (enjoy all the rights and privileges of Australian citizenship free from unnecessary interference or control and stand up for the rights of others)
- Honesty and trustworthiness (be honest, sincere and seek the truth)
- Integrity (act in accordance with principles of moral and ethical conduct, ensure consistency between words and deeds)
- Respect (treat others with consideration and regard, respect other persons' point of view)
- Responsibility (be accountable for one's own actions. . . contribute to society and to civic life, take care of the environment)
- Understanding, tolerance and inclusion (be aware of others and their cultures; accept diversity within a democratic society).

Across these nine values, five can be classified as moral values: care and compassion, integrity, respect, responsibility and understanding, tolerance and inclusion.

In addition to these two components that are common to all TVET colleges in the People's Republic of China ('Eight Do's and Eight Don'ts' and occupational attitude learning), ZJTIE has introduced traditional culture education as an important additional component in students' development. This integration of Chinese culture and heritage into the TVET curriculum is a rare practice in vocational education, due to the assumption shared by many that vocational education should be oriented to skills training. The underlying belief for inclusion of Chinese culture and heritage in ZJTIE curriculum is the visibility of the strong links between skills and values, the whole person development and know-how innovations and the competitive market and 21st century requirements.

The ZJTIE's philosophy on inclusion of Chinese culture is also based on the understanding that there is a close link between the Chinese culture and contemporary society. However, it is acknowledged that selective approaches towards identifying the appropriate messages from cultural heritage need to be applied so they would not conflict with modern social and economic needs. As was stated above, the etiquette, for example, contained old hierarchical meanings; therefore, its meaning was updated to deliver the message that in modern PRC all people need to be treated with respect. Another example is the traditional academic orientation of Chinese culture and the ignorance of skill and working people. This issue is also being discussed with students to demonstrate the inappropriateness of this approach in a modern economy and society. The benefit of addressing challenges is that not only states rules such as 'Eight Do's and Eight Don'ts' are usually taught as a compulsory course but also an opportunity for the students to be actively engaged in learning is provided through the following cultural means:

- Calligraphy is a pure Chinese art that could not be associated with modern technology or be substituted by computer or typewriter. In the modern Chinese society of money worship, eagerness for quick success and instant benefit could occupy a person's mind. Calligraphy proposes an alternative of a peaceful and elegant enjoyment that can clear the mind and help a person to focus on work.
- Poetry seems to be forgotten by modern society, and particularly, it is not common for vocational colleges to advocate poetry learning. However, ZJTIE stimulates poetic emotion in students. The skill of reading and writing poems helps students in their professional and family life. It brings their communication skills onto the next level. Sublimate personality wins more appreciation.
- Chinese antiques are the essence of Chinese culture. In the delta of the Yangtze River and other wealthy areas, many businessmen enjoy collecting Chinese antiques as a hobby. Students learn to understand and appreciate Chinese antique, to distinguish between fake and original pieces. This additional knowledge is particularly important as it helps to develop integrity and honesty.
- Chinese drama, music and paintings are also beneficial for students as they bring an understanding of traditional heritage and contribute to the development of an all-rounded person.

These active engagements of students in a variety of activities help them to understand and experience the particular values, be proactive in understanding and organising activities and appreciate Chinese traditional heritage. There are a number of ways on how the above ideas are realised in practice:

Included in Specialised Courses

Occupation-specific courses constitute the major part of students' learning; therefore, Chinese heritage studies embedded in these courses could deliver significant results. Appropriate knowledge values addressed throughout these specialised courses could help students to relate their knowledge of future occupation with moral values. For example, Xin (honesty) is addressed in marketing courses, Li (etiquette) in hospitality and sustainable development (SD) in materials. In 2008 some elements of Chinese heritage studies were embedded in 20 specialised courses.

Delivered Through Compulsory Courses

Regularly, ZJTIE set up some compulsory courses (credit course) like the SD-based scientific concept of development, occupational attitude learning, calligraphy and painting in most majors. Students are learning concepts and skills in the classroom environment and beyond (e.g. site visits for occupational attitude learning). Students' active involvement in discussions and activities are encouraged.

Established as Elective Courses

The large number of optional courses (credit courses) like poetry and antique appreciation is listed as electives. For example, for the period 2004–2008, 58 elective courses have been developed and available for students. On average, one student had chosen 1.26 elective courses during a 3-year study at the institute. All students chose at least one elective course; 80% students chose more than one.

Facilities and Environment

The museum and antique appreciation lab was established in ZJTIE for students to enjoy. They are open for students every day and they are free of charge. An educational influence of the cultural environment could not be underestimated. Building walls and the campus are decorated with Chinese paintings and handwriting as well as Chinese statues. They are produced by students and teachers of the college.

Some teachers bring their own artefacts for the expositions. Matching the philosophy of 'education by environment', general staff of the institute is also involved in cultural activities organised on campus.

Students' Organisations

Students' associations hold rich and colourful activities to include Chinese culture into their leisure. The XINHUA poetry association, calligraphy association, fine arts association and literature association have been in operation since 2001. The XINHUA poetry association publishes its periodical called *Chinese Poetry Education* and distributes it in the region. More than 48 issues have been published.

Students are actively involved in many competitions. For example, in 2007 and 2008 in two local handwriting competitions for TVET and academic students, the participants from ZJTIE won both gold medals. These types of achievements develop students' confidence giving them an opportunity to feel good being TVET students.

Employability

As a result of the above activities and resources provided to students, the employability level of ZJTIE graduates is higher compared to other graduates. Since 2006 the employment rate has reached over 97%. In 2008 it was 98.6% compared to the average for the Zhejiang province of 93.2%. The graduates have been locally and nationally employed due to their developed personal qualities as well as proficiency in an occupation. General managers of all five sub-companies of the Zhejiang Material Industry Group (that has established close links with the college) are ZJTIE graduates. More than 30% of senior managers are ZJTIE alumni. In 2007 ZJTIE received an award for being among the 50 best colleges in the People's Republic of China for the highest employment rate of their graduates. The award was issued by the National TVET Association. The institution's experience attracts public attention. For example, on the 17th March 2009, ZJTIE president Chen Lineng gave an interview for the [People's Republic of] China Central Television station on the issues of employability. Survey demonstrates (Jiang 2008) that employers needed all-rounded, well-educated graduates, the ones that have potential and ability to be trained in the future.

This case study illustrates the way values could be addressed in the TVET sector in the Chinese context. The development of values included approaches through a combination of a compulsory 'Eight Do's and Eight Don'ts' that provides guidelines for values development in the occupational attitude learning and traditional cultural studies. This approach provides an opportunity to address both terminal and instrumental values, including moral values. This combination presents a systematic approach for values development in TVET. In terms of pedagogy, this approach includes both lecture-based and student-centred learning.

These practices help to address all aspects of values: knowledge, feelings and behaviour that increase employability of graduates and contribute to their successful career development.

Generic Green Skills

‘Enriched’ employability skills that include moral values and framed by ‘green agenda’ have been argued for in this chapter. The ways moral values are addressed in TVET in the People’s Republic of China (as examined above) provide a mechanism to incorporate values associated with generic green skills in technical education and training. Those countries that have a tradition of values development through TVET (e.g. the People’s Republic of China, Russian Federation) could achieve this effectively. The tradition of values education in TVET in the People’s Republic of China (and in the Russian Federation due to historical links) encourages teachers to address values through generic subjects (e.g. ethics, literature, history, foreign language, biology) and specialised courses relevant to future occupations. In these countries, workshop teachers have been involved in the process of students’ upbringing (values development); however, they require a definite framework and guidelines for that. Values that underpin a green economy could serve this need.

In the Russian Federation, for example, over the last half century, patriotism related to victory in the Second World War was the basis for value development. Now that the modern world has changed these, teachers are searching for a new vision that could serve as the basis for value development. As stated by the deputy director of the Methodological Centre for VET in St. Petersburg,⁵

When you are talking to workshop teachers you realise that they have a deficit in new orientation. Too much [of value education] is built upon our victory in the Second World War (that relates to the age of teachers) which symbolise a fight between world evil and a victory over it. With the current generation it does not work so well as with the previous ones. (Pavlova 2009)

This deputy director discussed the possibilities of education for sustainable development as a framework for upbringing (value development) with workshop teachers, who stated that they would be very thankful if they have new ideas to build their upbringing strategies upon.

ZJTIE was actively involved in the project for addressing SD issues in curriculum with very positive results achieved, including content change and student-centred pedagogy developments. However, TVET teachers involved in the project felt challenged as they had limited knowledge of how to address SD issues through their teaching and they did not have enough reference material and syllabus examples (Pavlova and Huang 2009). Although there are challenges on the practical level of development and implementation of the SD in TVET, on the system level, that was possible.

⁵ This centre develops teaching materials and resources for all VET institutions in the city as well as delivering in-service training for VET workshop teachers.

For the countries that do not have traditions of value development in TVET, the inclusion of green generic skills might involve more challenges. The conclusions of research conducted by Goldney et al. (2007) in Australia highlighted the difficulties of addressing sustainability issues in TVET due to the presence of ‘a particular VET culture, pedagogy that prevents ESD development in VET’. The situation will be similar to the countries where TVET is exclusively oriented towards skills development.

Conclusion

Employability skills have been traditionally viewed within self-actualisation/competence framework. With an emerging green skills agenda within a sustainable development perspective, the inclusion of moral values in TVET is attracting more and more attention. The importance of moral values has been argued by both practitioners and researchers. Due to the different traditions in moral values inclusion in TVET, some countries such as the People’s Republic of China and the Russian Federation have a historical advantage in generic green skills inclusion through TVET. The notion of developing students so they are capable of being involved in the creation of a better society and greener economy, by developing their responsibility and orientation towards the ‘others’, is closely related to the concept of sustainability that is concerned about humanity and its future, of the quality of life for further generations. It is suggested that a green agenda for sustainable development could provide such a framework for TVET. It could serve as the basis for policy formulation that identifies empowering strategies for students’ development.

The reorientation of individual values towards green development empowers TVET graduates with new visions of reality and the means to achieve them. It is argued here that education for sustainable development and a green agenda are effective ways of addressing moral values through vocational education. However, context-specific thinking and planning is required for the development and implementation of these strategies and approaches accepted by TVET teachers and students.

This chapter examines an understanding of values in the People’s Republic of China and the ways they are implemented by one TVET institution. The case study of ZJTIE demonstrates a variety of ways values are included in TVET and the results they provide in terms of graduate employability. All three components of values, cognitive, affective and behavioural, are taken into account through the courses and students’ activities. The cognitive component provides the awareness of different values and demonstrates the reasons to put moral values first. The affective component establishes links between the practical task and students’ feelings by putting activity into a meaningful context. The behavioural component gives students an opportunity to act in accordance with their moral values. Students receive help in developing their own value system so they can respond appropriately when they find themselves in a challenging situation.

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