Social Practice of a Career Guidance Project Based on the Wisdom of the *Classic of Changes*

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The Virtue Existential Career Model (VEC) is a Chinese career development model based on the *Classic of Changes*. It is designed to supplement the person-environment fit paradigm of Taiwan's 12-Year Basic Education for junior high school students. We adopted an action research approach with two parts, reflection-on-action and critical-emancipatory. An easy-to-use VEC career curriculum and a career information system (Career Genesis; CG) were developed by a team of staff members from government agencies (Tainan Department of Education and Student Counseling Centers), junior high schools, and the Chinese Career Research Center of National Changhua University of Education, Taiwan. The outcome of this project was strong on fostering interconnectedness. Implementing our VEC curriculum and CG to 30 junior high school students received statistically significant immediate increases in resilience, adaptation, and liking of career decision. The feedback and reflections suggest that *mandating*, *attracting*, and *simplifying* are useful strategies to promote our VEC model as well as to facilitate social change and create a multiple-win situation for all parties involved. This approach also follows the *tao* (道) of the *Classic of Changes* to provide new knowledge.

Keywords: career theory, career counselling, Chinese philosophy, indigenous psychology, career information system, *Classic of Changes* (*Yi Jing*)

Taiwan has been transforming into a knowledge-based economy (also known as knowledge economy, frequently discussed with issues of informationalism, information revolution, knowledge sharing, knowledge management, intellectual capitalism; Al-Hawamdeh, 2005; Chen & Chiu, 2005; Hu, Lin, & Chang, 2005; Shie & Meer, 2010; So, 2005). The Organization for Economic Cooperation and Development (OECD) defines a knowledge-based economy as 'economies which are directly based on the production, distribution and use of knowledge and information' (OECD, 2005). Many national standards for higher education or employability in various countries (Commonwealth of Australia, 2002; Council for the Advancement of Standards in Higher Education, 2009; OECD, 2005; Partnership for 21st Century Skills, 2008) have pointed out the importance of how learning to learn, lifelong learning, using information and communications technology, managing information, acquiring and using knowledge, solving problems, resolving conflicts, and innovating have become common occupational capacities at all levels and in all lines of work. In sum, workers need to acquire, utilise, and innovate upon their knowledge creatively.

Aligned with the international trend of educational reform emerging in the era of knowledge-based economies, Taiwan has gone through educational reform during the past decades (I-ru, 2012; Lin, 2004). In 2014, Taiwan's Ministry of Education (TMOE) implemented its second education reform, the 12-Year Basic Education (十二年國教), following the mandatory education requirement of 9 years, which began in 1968. The new reform is meant to encourage junior high school students to explore their abilities and interests before making their educational and career decisions for the 10th grade. With this agenda, career guidance, a subset of general education in junior high school, becomes a focus. Junior high schools are asked to promote career guidance courses and apprenticeships, and to embed career elements into regular courses so that

students can explore their career development and be exposed to sufficient career information.

We observed two problems in TMOE's career guidance practice in junior high schools. The first problem was the incompleteness of its adaptation of the person-environment (P-E) fit paradigm (Spokane, Meir, & Catalano, 2000; Tinsley, 2000; Tracey, Darcy & Kovalski, 2000) to the current knowledge-based economy. The second results from what Chinese call *the superiors can make policies and the subordinates always have strategies to circumvent them* (abbreviated as *making policies vs. circumventing policies*, 上有政策, 下有對策). That is, guidance teachers in junior high schools were busy doing paperwork instead of professional work to accomplish the underlying missions of the TMOE's requirements.

To solve these problems, the Chinese Career Research Center of National Changhua University of Education (or NCUE) in Taiwan proposed a VEC curriculum and Career Genesis (CG), both based on the Virtue Existential Career (VEC) model (德性存在生涯模式; Liu, S., Hung, Huang, Wang, & Peng, 2015; Liu, S., & Wang, 2014; Liu, S., Chen, Lu, Lu, & Ching, 2014). This approach echoed Hwang's (2005, 2012) advocacy for culture-inclusive psychology as well as Liu, Ng, Gastardo-Conaco, and Wong's (2008) proposition for social and cross-cultural psychology as a global enterprise. Confucian philosophy is considered to be a world philosophy that is rooted in the universal humanity and appeals to the whole of humanity (Cheng, 2013; Hwang, 2009; Liu, J. 2014). We used it to address ordinary people's practical and existential career concerns.

The purpose of this action research was to complement the TMOE's fit model with the VEC model. This article presents our application of the VEC model to Taiwan's career guidance practice in junior high schools. It consists of the following: (1) our problem awareness concerning Taiwan's career guidance practice in junior high schools; (2) our VEC model and its application for junior high school students; (3) our research methods in terms of epistemological concerns, participants, project tasks, and evaluations; (4) our sequential research action and its action strategies and outcome analyses; and (5) the future vision of living up to the *Tao* (道).

Problem Awareness

Can the P-E Fit Paradigm Address the Career Development Requirements of a Knowledge-Based Economy?

The knowledge-based economy trend has added complexity to occupational structures and an individual's career development (Amundson, Parker, & Arthur, 2002; Borgen, 1999; Kanter, 1999a, 1999b, 2003; Savickas, 2000). Empirical evidence supports the idea that career development has gradually shifted from a traditional linear pattern to a boundaryless/protean one (Bussolari & Goodell, 2009; Forrier, Sels, & Stynen, 2009; Harrison, 2006; Stoltz, Wolff, Monroe, Mazahreh, & Farris, 2013). Career development has been reframed as a process of choosing an educational

or occupational option for *identity investments* (Wijers & Meijers, 1996), within which recognising risks and appreciating change has become somewhat necessary (Adams, 2006; Pryor & Bright, 2003).

The 12-Year Basic Education policy holds on to the rational P-E fit paradigm proposed by Parsons (1909). Its mandatory practices of career tests, occupation site visits, and the *Career Record Booklet* (nicknamed as *The Blue Booklet* because of its blue cover) deliver the message that the main tasks of career development are to (through rational analysis) find the career paths that match the measured abilities and interests of students, and for these students to make and implement career plans accordingly.

There may be two challenges when incorporating the Western individual-orientated P-E fit of career paradigm into Taiwanese junior high students' career development. First, Confucian culture[1] in Taiwan places emphasis on academic achievement and glorifying family through occupation. Parents expect their children to enrol in prestigious schools: 'the glory of the individual' implies 'the glory of the family' (Hwang, 2012; Qi, 2014). Although such a norm of mutual identification also applies to Western families, studies have illustrated that parental influence in shaping the career decision of their posterity is more powerful in Eastern societies (Iyengar & Lepper, 1999; Tang, 2002). Therefore, in Confucian culture it is an important ability to integrate concerns of family into an individual's career (Liu, J., McMahon, & Watson, 2015; Mau, 2004) and manage family intrusiveness while making one's decisions (Fan, Cheung, Leong, & Cheung, 2014; Liu, J. et al., 2015; Ma & Yeh, 2005; Pekerti, 2008). According to the theory of motivated information management, children in a Confucian culture have to assess the costs and benefits associated with information seeking (outcome assessments) and their ability to enact a particular strategy (efficacy assessments) before they take action to manage career uncertainty and related anxiety (Afifi, Dillow, & Morse, 2004; Chang, 2014). This is because it is normal for parents to expect to have a say in the consequences of such information seeking.

Second, the P-E fit paradigm rests upon the stability and predictability of both a person's traits and the world of work (Holland, 1997; Super, 1957); yet, occupation structures and demands are full of rapid change in the era of knowledge-based economies (Miller, 1995; Trevor-Roberts, 2006). The work environment nowadays is volatile and defies prediction, which is a basis of the P-E fit paradigm (Lynch, 2000; Savickas, 2000).

In sum, the 'modernist' approach attempts to use rational strategies to make a choice and execute a corresponding plan to pursue a P-E fit. This may help individuals to handle the stable aspects of career development (Spokane et al., 2000; Tinsley, 2000; Tracey et al., 2000). However, individuals need new career views to cope with change and the uncertainty aspects of career development as well (Delia Rocca & Kostanski, 2001; Herr, 1999; Herr, Cramer, & Niles, 2004). In line with

this thought, Gelatt (positive uncertainty; Gelatt, 1989, 1995), Cochran (narrative approach career counseling; Cochran, 1997), Krumboltz (planned happenstance theory; Mitchell et al., 1999; Krumboltz, 1998a, 1998b), Pryor and Bright (career chaos theory; Pryor & Bright, 2003, 2005, 2006, 2007), and Valach & Young (contextual action theory; Valach & Young, 2004) have proposed postmodern approaches to career development. They advocate open-minded and creative strategies to appreciate and adapt to change and uncertainty in the surroundings, so that individuals can extend themselves to try on possible selves and jobs. To combine these two approaches, we have provided an alternative career curriculum based on our VEC model.

How Can Career Guidance Become Professional and Beneficial Instead of Being a Documentation of Career Activities?

To enhance students' career exploration and decision-making capacities, the TMOE requires schools to provide career tests and occupational site visits. The schools are also mandated to facilitate students to document all their career-related activities in *The Blue Booklet*. However, this has created a superficial focus for students to complete the booklet to gain credits for applying for enrolment in high schools, and for school administrations to continue to receive resources or avoid punishment from the local Ministry of Education (ME).

This phenomenon of superficial documentation resulted from *making policies versus circumventing policies.* That is to say, the subordinates mainly focus on providing superficial attention to pass the criteria of policies, but neglect to achieve the real mission of the policies (Yu & Huang, 1991). This may be because the subordinates and the superiors lack common ground about the mission or do not have the time and effort required to achieve the mission; for example, to take into account Chinese parents' influences on their children's career development, the TMOE requires students and their teachers and parents to indicate their opinions about students' educational choices. With the purpose of encouraging students, teachers, and parents to have a discussion and come to an agreement, it was designed in such a way that those students who have a documented student-teacher-parent agreement in *The Blue Booklet* received 6 points when s/he applied for enrolment in a high school. It transpired that all students received the maximum 6 points, because the parents, teachers and students all colluded to arrive at a consensus about the latter's educational choices. This virtually nullifies the value of *The Blue Booklet* as a lynchpin for discussion.

The VEC Model and its Applications for Junior High School Students
The VEC Model[2]

The VEC model (Liu, S., et al., 2015; Liu, S. et al., 2014; Liu, S., & Wang, 2014) was established by the NCUE Chi-

nese Career Research Center. This model reflects the ancient Chinese wisdom of the *Classic of Changes* (易經; also known as the *I Ching* or the *Book of Changes,* the *Zhouyi* or *Zhou Changes,* an ancient divination text and the oldest of the Chinese Classics). This *Classic* articulates a cosmological model of changes via the fluxions of the two essential elements of y*in* (陰) and *yang* (陽). *Yin* (literally, dark) represents *receptivity* and denotes the power of earth; *yang* (literally, light) represents *creativity* and denotes the power of heaven. The *yin-yang* fluxions show the relationships of *mutual completion and enhancement* (亦此亦彼), *generation by opposition* (相互轉化), and *joint production* (生生不息). These principles govern, create, and transform all things existing in between earth and heaven (Chen, 2002; Cheng, 2009a; Fu, L., 1981; Fu, P., 2011; Huang, 2003, 2007; Liu, Y., 2005; Nan, 1991a, 1991b). Such *yin-yang* fluxions entail a sustained and dialectical process as a temporally successive phenomenon with no linear theory of causality.

The *Classic of Changes* reveals in its opening passages the significance of harmony in the ceaseless *yin-yang* fluxions and transformation of things and situations: 'The way of heaven/*yang* is transformation, so that each thing obtains its own genuine life and is maintained in great harmony (乾道變化, 各正性命, 保合太和; Nelson, 2011).' Harmony is a philosophy defining the relations among the elements of the unity in diversity, a way of living and behaving that leads to modesty and flexibility, and a moral process starting from self-examination and reaching the Middle Way (中庸之道; Yao, 2013). *Being harmonious* (和) is different from *being identical* (同). That is, the totality is composed of different parts, and true harmony includes apparent *opposites within* as part of an overall unity. Actually, *inclusive opposites* are the power and energy of the harmonising process in *yin-yang* philosophy. Through harmonising, elements are brought into a dialectic relationship in which they contradict and yet mutually supplement each other and are thereby constructed in a new relation to form a new unit (Cheng, 2009b; Shen, 2003; Yao, 2013).

Accordingly, career development is constituted of interacting elements, different yet related, opposing yet complementary to each other. Within such a philosophy, career development is considered as a process of becoming through a continuous and discontinuous interplay of preceding and consequent moments in time and human development. As continuous, it always keeps something from the preceding moment; as discontinuous, the novel moment has its own originality that cannot be reduced to the preceding moment. Such a career evolution process is different from the traditional linear pattern promoted by the rational P-E fit paradigm (Sheldon & Elliot, 1999; Spokane et al., 2000; Tinsley, 2000; Tracey et al., 2000); rather, it is closer to a *boundaryless or protean* pattern (Bussolari & Goodell, 2009; Forrier et al., 2009; Harrison, 2006; Stoltz et al. 2013) described by postmodern career theories (Cochran, 1997; Gelatt, 1989, 1995; Mitchell, Levin,

Table 1

The Characteristics of Two Career Paradigms

Career development	Career paradigm	
	P-E fit (*Yang*)[1]	Postmodern (*Yin*)[2]
Career view		
Career vision	One matched occupation	Multiple possible selves and occupations
Projecting strategy	Choosing and controlling	Adapting and appreciating
Method of career praxis		
Exploration mechanism	Rational and analytic thinking	Dialectical and holistic thinking
Self-exploration method	Objective quantitative assessment	Subjective qualitative assessment
Environmental exploration method	Non-involved information processing	Involved information experiencing
Evolution styles	Focus and controlling	Open and appreciating
Evolution capacity	Analytical controlling	Flexibly adapting
	Resilience from stress	Pursuing meaning with hope
Goals of career praxis		
Ultimate concerns	Controlling to stabilize	Adapting to change
Person-environment relationship	Promoting individual agency	Promoting person-environment harmony

Note: [1]This column lists those which are shared by both P-E fit and postmodern career paradigms.
[2]This column lists only those which are unique to a postmodern career paradigm.

& Krumboltz, 1999; Krumboltz, 1998a, 1998b; Pryor & Bright, 2003, 2005, 2006, 2007; Valach & Young, 2004). Empirical research has offered support for the idea that those who wisely utilise both *yin* and *yang* types of career strategies could have career satisfaction and experience wellbeing and resilience (Hsiao, 2006; Kao & Liu, S., 2012; Lee, 2010; Peng, Hung, & Liu, S., 2013; Liu, S. et al., 2013). For example, the Middle Way beliefs, accepting the coexistence of *yin* and *yang* and emphasising equilibrium and harmony, have been found to: (1) positively associate with life satisfaction (Huang, Lin & Yang, 2012); and (2) mitigate the harm from hindrance-related stress on employee wellbeing, weaken the negative effects of challenge-related stress on emotional exhaustion, and transform challenge-related stress into eustress for job satisfaction (Chou, Chu, Yeh, & Chen, 2014).

A conceptual framework of career views was used to merge the above-mentioned career propositions based on Chinese wisdom from the *Classic of Changes* with Western career theories. The concept of career view contains two parts: career vision and ways of *being-in-the-world* (projecting strategies). Career vision[3] identifies *what* an individual wants in his or her career; including chosen goals, career directions, and/or delineated pictures of ideal lives. Projecting strategies identify *how* an individual gets what s/he wants or takes what s/he is given. Career vision and projecting strategies answer two essential existential questions, the reasons of being and the actions of being. Together, they illustrate an individual's being. Everyone has his or her own career view, which indicates his or her ideal career development and favoured career development strategies (Liu, S., 1996, 2005; Liu, S., & Chu, 1998).

Table 1 denotes the characteristics of two career paradigms in terms of career view and praxis (Liu, S. et al., 2015; Liu, S., & Wang, 2014; Liu, S. et al., 2014). The P-E fit paradigm considers a matched job as the ideal career development and prefers rational strategies to achieve job security. Such an approach considers career uncertainty as something bad and tries to remove it by *choosing and controlling*. Western postmodern career theories valued openness and appreciated multiple possible selves and occupations as ideal career visions. They consider career uncertainty as something good and try to capitalise on it by *appreciating and adapting*. Strategies of choosing and controlling emphasise rational and analytic thinking to capture a precise understanding of self and environment, utilising quantitative assessment results and factual career information. Strategies of appreciating and adapting, on the other hand, emphasise dialectical and holistic thinking to obtain experiential understanding of self and environment by immersing into narratives or artistic creation. While modernism focuses on *yang* only and postmodern stresses *yin* much more than *yang*, our VEC model values both *yang* and *yin*.

Individuals' career views and praxis differ across cultures. A literature review has indicated that perceived opportunities for choice create the illusion of control, which is a biological imperative for survival; nevertheless, the perception of control, the value of choice, and the preference to exert control can be altered as a result of personal development, personality, learning history, and cultural experiences (Leotti, Iyengar, & Ochsner, 2010). People in a Western culture tend to use rational and analytic thinking while East Asians tend to use dialectical and holistic thinking (Nisbett, Peng, Choi, & Norenzayan, 2001). Specifically, Hong Kong Chinese spend less time on decisions and parse through both important and less important information more efficiently, whereas European Canadians spend more time on decisions and selectively focus on important information (Li, Masuda, & Russell, 2015).

What is the ultimate aim of one's career evolution process? What is the underlying meaning of life of one's career vision? Confucian interpretations of the *Classic of Changes*

are primarily ethical (Yao, 2013). At the individual level, Confucian ethics are about how to realise oneself as fully self-conscious being-for-itself. It assumes that one's self needs to be created, developed, and realised in the ethical life while the potentiality of building a self is given (Chen, 2014). Specifically, one is expected to possess both *yin* virtue (embracing all aspects of humanity and accommodating all matters in this world, 厚德載物) and *yang* virtue (unceasingly striving for improving themselves with their great perseverance, 自強不息). At the relational level, Confucius makes a *gentleman* (君子) distinctive from a *petty person* (小人), the former being *harmonious* but not *identical* (和而不同), while the latter is the opposite (同而不和). Such harmony is interpreted as the result of principled conciliation with others, in which the morally cultivated person seeks good from others and at the same time exerts good effect on these others, by which a new, interactive and harmonious relationship is established (Yao, 2013). Moral quality demonstrated in the harmonising process is not only descriptive, but also simultaneously a political ideal. At the societal/political level, the Confucian ideal is a benevolent government (仁政), energised by the ruler's parental love toward his/her people.

Two perspectives constitute the Confucian ideal of rulership: *inward sageliness* and *outward kingliness* (內聖外王; Liu, J., 2014; Kim, 2012; Yao, 2013). Hanfeizi, the most sophisticated political theorist of Legalism in ancient China, criticised the Confucian political ideal by pointing out that: (1) even within the family, parental love falls short of making the children orderly; and (2) *ren as love* (仁愛) inevitably confuses what is right/meritorious with what is not, and thus disrupts the legal system. However, Kim (2012) defends Confucian virtue politics against Hanfeizi's criticisms. He argues that the ruler practises the *Kingly Way* (王道) by extending his benevolent heart that he naturally has for his or her own family members to his or her people. What constitutes orderliness is not legality but ren as love, especially the ruler's parental love for his people. In sum, life, and by extension career development, is an endless process of cultivating inward sageliness, relational kindheartedness, and living a moral life while being entangled by worldly affairs.

Accordingly, an ideal career development is harmonious via wisely utilised *yin* and *yang* types of career strategies to handle all kinds of career issues (Hsiao, 2006; Kao & Liu, 2012; Lee, 2010; Peng, Hung, Lin, & Liu, 2013; Liu, S. et al., 2013). At the same time, self-cultivation is the core underlying the application of these career strategies. The resulting career evolution is twofold: one is experience, as *living on the earth* (活在世間), and the other is meaning or cultivation, as *living out of te* (活出德性; Liu, S., et al., 2015; Liu, S. & Wang, 2014; Liu, S. et al., 2014). Through the realisation of their career visions, individuals fulfill their life's meaning and moral obligations. Furthermore, their career development continuously evolves by the virtuous loop of construction, implementation, reflection, and reconstruction.

Construction of Career Genesis

Career Genesis (CG; http://careering.ncue.edu.tw/genesis/) is the junior high school version of *Chinese Career Net* ([CCN]: http://careering.heart.net.tw/), a career assistance network originally designed to help college students with their career development. CG now uses the common language of junior high school students and gaming techniques to make career exploration a computer game experience for the users. Its outputs can be posted to *The Blue Booklet* to meet the TMOE's requirements. Both CG and CCN were funded by the CCRC.

The theoretical base of CG is our VEC model. It utilises CCN's career measurements to assess the students' career characteristics, to assist their competency in *choosing and controlling*. The CCN occupation database provides concrete information to help students locate their career directions. The measurements of career evolution are for the purpose of students' development of *adapting and appreciating* uncertainty and change over the course of career development. From CG, students can have (1) test results and interpretations (*yang*), (2) the match ratings between their career characteristics and the career options, such as educational majors and occupations (*yang*), (3) factual information of their possible career paths (*yang*), (4) developmental career stories (*yin*), and (5) understanding of their career evolution styles, capacities, and status (*yang* and *yin*). Guidance teachers can use CG as a tool to teach, counsel, and understand students' career development.

Our VEC Career Curriculum

The VEC model makes up for the lack of emphasis on handling career uncertainty in the TMOE's 12-Year Basic Education's career guidance policies. To superimpose the VEC model upon career education, we grappled with the subtlety of its concepts and translated them into prescriptions for career teaching. It encourages junior high school students to utilise both *yang* and *yin* projecting strategies to live with the unavoidable uncertainty and rapid change of work requirements in a knowledge-based economy (Liu, S. Chen, Lu, Lu, & Ching, 2014). The conceptual framework of career view, as well as the concepts of career evolution styles, capacities, and status are introduced to help students realise their career visions and life meanings. Specifically, the VEC model helps junior high school students to: (1) synthesise the relationship between their own career characteristics (including occupational interests, life values, aptitudes and capabilities) and career options through narrating their expected and unexpected life experience (*yin*), (2) rationally construct their perception of the world of work (*yang*), (3) creatively construct their career visions (*yin*), and (4) harmoniously utilise both *yang* and *yin* projecting strategies to manage the rapid change of today's job market (*yang* and *yin*).

The learning goals of VEC career curriculum are fourfold: (1) developing versatile views of reality and

Table 2

Three Levels of Career Guidance Missions for Junior High School Students

Topics	Level 1: *The Blue Booklet*	Level 2: P-E fit curriculum	Level 3: VEC curriculum
Self-awareness	Documenting test scores on academic performance, career interest, aptitudes, and work values	Analyzing and integrating test scores and the experience of career exploration	Exploring and reflecting on career evolution styles and abilities
Occupational information	Documenting participation in workers sharing and occupation/education institutes' site visits	Understanding factual information of occupation requirements and structures via career tours and panels	Reflecting on experiences of attending career tours and panels
Family's expectations	Documenting career expectations of family	Exploring family members' occupations, values, and career expectations toward the students	Constructing one's own career version via self-explorations and family interactions
Making educational decisions	Documenting a consensus of test results, academic records, occupational information and family expectations	Evaluating career options with value sheets	Applying career evolution styles and abilities to construct unique career visions that contribute to a good relationship between the students and their family

Note: The documentation of the blue brochure is the first (basic) level, the analytical integration of P-E fit curriculum (the second level) is built upon the first level, and the VEC curriculum is the third level which includes the first two levels.

constructing various career possibilities, (2) appreciating and mastering their rational and intuitive projecting strategies, (3) treasuring serendipity and making good use of curiosity and flexibility, and (4) managing inevitable change and uncertainty (Liu, S. et al., 2014). Table 2 shows the three levels of career guidance missions for junior high school students. The third level includes those of the previous levels. For example, though the unique mission of the VEC curriculum is the application of career evolution concepts, it also includes the shared missions of documentation (*The Blue Booklet* level) and analytic integration (the P-E fit level). From the perspective of the VEC model, *The Blue Booklet* level focuses on documenting correct career choices and commitment based on TMOE policy guidelines; the P-E fit level emphasises rational efforts of formulating appropriate career choices and commitment based on the views of guidance teachers; the VEC level pursues a more individualised way of constant and adaptive career evolution based on the student's own perspective. In a sense, the VEC career curriculum reconciles the contradiction between the specialist and generalist approaches[4] to education and career. The former succeeds in terms of commitment while the latter excels in terms of versatility.

Action Research Method: Reflection-On-Action and Critical-Emancipatory

This is a 3-year VEC career guidance project with a research team of school counsellors, teachers and administration staff from the Tainan Student Counseling Center, NCUE, and Tainan's Department of Education. We have adopted an action research approach, which consists of two parts, reflection-on-action and critical-emancipatory (Schön, 1983; Winter, 1996). The research action to be reflected upon includes problem identification, program selection, team recruitment, implementation, and evaluation. Critical-emancipatory refers to the application of the practice results to liberate the old paradigms and replace

them with new approaches. The focus of the first year was to: (1) make connections to promote and establish the VEC project; (2) train VEC instructors, counselling administration staff, and guidance teachers of Tainan junior high schools; (3) facilitate the completion of the administration and interpretations of CCN tests for all junior high school students in Tainan; and (4) hold a career lesson teaching contest. The second year included: (1) the development of CG and VEC teaching materials, (2) volunteer participants in VEC trainings, and (3) the introduction of our CG and VEC model to counties other than Tainan. The application and effectiveness evaluation of VEC started in the third year.

A Core Cooperation Team

The project started with a main team consisting of supervisors from the Tainan[5] Department of Education, the chair and (current and former) career coordinators of Tainan Student Counseling Center, the chair of the Chinese Career Research Center (CCRC), and the principal and guidance teachers from the junior high school designated to administer career guidance in Tainan. The Tainan Student Counseling Center (TSCC) submitted a proposal to the Tainan Department of Education and received funding. The Tainan Student Counseling Center worked with the designated school to implement the project in Tainan. The Chinese Career Research Center provided consultation, data collection and analyses, and CG, an internet career resource.

Research Projects and Participants

In the first year, the CCRC trained 330 guidance teachers and provided test services to 24,250 students in Tainan. The TSCC held a career lesson teaching contest for which 45 guidance teachers submitted 90 lesson reports.

In the second year, the CCRC invited 10 guidance teachers who had won the teaching contest and 18 guidance teachers with information technology (IT) or

Table 3

The Confirmative Factor Analysis Results of the Three Career Evolution Measurements

Inventories	Chi-square	CFI	RMSEA	Chi-square/df	GFI
CCN Career Evolution Style Inventory	126.64	.97	.08	3.73	.95
CCN Evolution Capacity Inventory	728.93	.91	.08	3.60	.87
Career Evolution Status Inventory	126.64	.97	.08	3.73	.95

testing backgrounds to form the VEC curriculum development team and the VEC IT development team respectively. Then, the TSCC held workshops and delivered products developed from these two groups, which resulted in 120 guidance teachers and 2,000 students using CG.

In the third year, a class of 30 junior high school students received three VEC career classes and a female member of VEC curriculum development team was invited to coordinate the effectiveness evaluation of VEC teaching materials.

Measures

Evaluation criteria for action. Effects of this action research were examined using Liu, J. et al.'s (2008) principles of interconnectedness. While most Western action research uses the term *democracy* to highlight their equality and participation features, Liu J. et al. advocated the term *interconnectedness* instead to identify action researchers' 'managing contradictions, tolerating deeper elements of paradox, and synthesising the beauty of complex patterns' (2008, p. 1170). Their proposition was adopted since it is congruent with the *yin-yang* fluxion principles applied in this study. Five interconnectedness indexes were adapted in this research, including: (1) acquiring feedback in a cyclical-spiral process of reflection-on-action and critical-emancipatory; (2) social relation-building to plant seeds in different social positions for future actions; (3) reflexivity of participants in terms of increasing awareness of how they can deal with career issues differently; (4) empowerment by providing training, opportunities, and resources for career explorers and career services practitioners; and (5) social change in terms of changing the career guidance practice of junior high schools in Taiwan.

Assessments for our VEC model. Three CCN assessments were used in the VEC curriculum: Career Evolution Style Inventory, CCN Career Evolution Capacity Inventory, and Career Evolution Status Inventory (Liu, et al, 2013; Liu, Chen, Lu, & Su, under review; Lu et al., in press). These measures included an existential career view. The CCN Career Evolution Style Inventory has 10 items to assess students' *yin* and *yang* types of career strategies, namely *choosing and controlling* as well as *appreciating and adapting* in our VEC model. The CCN Career Evolution Capacity Inventory has 22 items and results in four subscales of Analysis, Resilience, Adaptation, and Aspiration. *Analysis* indexes rational data-collecting-and-analysing and decision-making and *resilience* points to the ability to overcome career uncertainty, challenges and difficulties; and

these two constitute *yang* types of career evolution capacity. *Adaptation* refers to the elasticity to achieve harmony within one's own life and between one and one's surroundings, while *aspiration* represents the power to pursue one's own dreams; and these two together signify *yin* types of career evolution capacity. The CCN Career Evolution Status Inventory uses five items to determine the overall career development status, with higher scores symbolising a career goal acceptable to both individuals and their families. We used the data from 19,626 Tainan junior high school students to examine the reliability and validity of these three measurements. They all had good internal consistency (αs ranging from .75 to .88). Exploratory and confirmatory factor analysis results indicated good construct validity (see Table 3).

Research Action and Outcome

Tainan's Main Forces and Problems when Implementing TMOE's Career Guidance Requirements Before the VEC Project

Before the VEC project was proposed in Tainan, its Department of Education and Student Counseling Center followed the guidelines and instructions of the TMOE. Junior high schools were required to have students complete career measures based on the P-E fit paradigm, participate in career information gathering tours (such as occupation site visits), and document all their career exploration activities and results in *The Blue Booklet*. All the schools and the students followed these requests because the Ministry of Education uses the information in the booklet as one of the senior high school enrolment selection criteria, and junior high schools are evaluated according to their completion rates.

Teachers used two approaches to meet this requirement. One was to just complete the booklet without any reflection or discussion. The other was that teachers used the booklet as a guideline to plan and teach about careers. Though the latter approach was better, it still employed the P-E fit paradigm that we consider to be incomplete in terms of being able to solve the difficulties created by the unavoidable uncertainty of career development.

The Accomplishments and Problems of the First Year of the VEC Project

The Tainan Student Counseling Center has observed the problems in the routine implementation of career guidance policies and the ill fit of the current career curriculum to a knowledge-based economy. The second author, a doctoral graduate of NCUE and a supervisor at the Tainan

Student Counseling Center, was a key person. He proposed a longitudinal service and research vision: establish Tainan's CCN test norms and follow up junior high school graduates for 10 years to analyse students' career development patterns. He talked to managers in various institutes, such as the Tainan Department of Education, Tainan Student Counseling Center, Chinese Career Research Center, and possible designated schools for research.

In order to improve career guidance in Tainan, the Tainan Student Counseling Center worked with the Chinese Career Research Center to promote our VEC model, and successfully proposed this project to the Tainan Department of Education. This was an effort to combine teaching practice, education administration, and academia. In addition to success in gaining sponsorship from the Tainan Department of Education, the accomplishments of the first year included: (1) 24,250 junior high school students' completion of the three CCN career inventories and receipt interpretation, (2) VEC training of 330 guidance teachers, and (3) a VEC career lesson teaching contest that attracted 90 participants and resulted in 20 winners.

The core cooperation team met every 3 months to discuss the progress on the VEC project and the feedback and questions from the workshop participants and the teachers who conducted the CCN tests with their students. Frequent issues raised were: (1) this project increased teachers' workload, and (2) it interfered with the progress of their regular class schedules. The teachers suggested the test result outputs could be pasted into *The Blue Booklet.* We also found that the majority of the lesson plans for the contest still focused on occupational interest. This showed that many of these teachers had not thought about integrating our VEC model into their teaching.

It seems that while focusing on promoting the VEC project, we did not pay attention to the problems caused by the dynamics between the TMOE, guidance teachers, and the student counselling centres. We will analyse this problem in the next section.

The Accomplishments and Suggestions of the Second Year of VEC Project
Three adjustments to the VEC project were made after team discussions of first-year issues. First, the results sheets with CCN measurements were modified to fit *The Blue Booklet.* Second, we recruited 10 winners of the career lesson teaching contest from the first year to form a VEC curriculum development group and 18 guidance teachers for a VEC IT group. The first group met monthly to discuss the development of an easy-to-administer VEC curriculum. In addition to getting their inputs, this increased the teachers' autonomy and agency through rigorous participation. The second group provided materials and suggestions to the CCRC through their comments on the CG. The third adjustment was to provide a VEC curriculum workshop instead of just lectures on the VEC model, with the hope that the teachers would integrate

the model into their curriculum. The materials and the instructors of the seminars were from the VEC curriculum development groups, and the participants were voluntarily enrolled rather than through the mandatory participation required of the first year's seminars.

There were a total of 120 participants in the three seminars. Most of them provided positive feedback such as: 'The instruction and materials from the first-line teachers are practical and meet our clinical teaching needs'; 'The seminar reminded me to use the blue booklet to construct useful career lessons for my students instead of just completing it for TMOE's evaluation requirements'; 'After the seminar, I realised that career development is dynamic and is more than planning. This definitely changes the way I instruct my career classes.' Some of them even suggested that we should give the seminars in all regions of Tainan so they can be available to the teachers of schools in rural areas.

Our Action Strategies to Manage the Phenomenon of 'Making Policies Versus Circumventing Policies'
To implement this VEC project, it was anticipated there would be conflicts between the TMOE, guidance teachers' implementation of the project, and our professional counselling knowledge. The conflict between us and the TMOE was over the choice of paradigms. Although the TMOE adopted the P-E fit model, they were open to other models as long as it helped them to promote career guidance. We were able to present the VEC model to persuade the TMOE to let us try out this model in their training workshops for guidance teachers. The conflict that guidance teachers had with us and the TMOE was the workload. Before their participation in the VEC project, and although guidance teachers might appreciate the TMOE's good intentions in enhancing career guidance, they were not comfortable that they were forced to accommodate a heavy additional workload and were mandated to complete *The Blue Booklet.* Therefore, they used a common saying, 'the superiors can make policies and the subordinates always have the strategies to circumvent them', to manage the TMOE's requirements and their regular work obligations.

In the first year of this project, we enthusiastically prepared seminars with the hope of attracting guidance teachers' attention to the benefits of the VEC model and CCN resources. We also took advantage of the TMOE's mandatory request to reinforce the 12-Year Basic Education policy. We presented and promoted the VEC project at the mandatory career workshops and seminars for guidance teachers. Such a mandating strategy turned out to be a mistake. Since teachers were much more interested in 'learning what to do', our enthusiasm for theoretical awakening failed to attract their attention. It should not be surprising that teachers would simply take our effort as another government mandate and might want to find some way to get around it. In other words, we, as Confucians, by *attracting,* invited guidance teachers to extend their parental love for their own family members to their students. At the same time, by *mandating,* we, like Hanfeizi, requested guidance

teachers to follow what we thought was good for them and their students. What was missing was our parent love for guidance teachers.

Therefore, *simplifying* was added and became the core strategy in the second year. By simplifying, we actualise our *yin* and *yang* virtues with harmony and show our parent love for guidance teachers before we ask them to love their students. We used *simplifying* to make our *attracting* noticed and easily understood, and to make our *mandating* accepted and easily accomplished. In addition to lectures on the VEC model, we also worked on constructing comprehensive and easy-to-administer VEC teaching materials and CG. We also provided CCN measurement outputs to fit the format of *The Blue Booklet*. These practical teaching and testing materials were to help guidance teachers to be able to easily use the VEC model to fulfill the TMOE's reinforcement of career guidance. Our efforts received good feedback. For example, the three VEC model workshops attracted 120 guidance teachers (about one third of all the guidance teachers in Tainan) to participate voluntarily, thus awakening their professional identity.

In addition to the abovementioned simplifying and attracting strategies, mandating was used as well. With the help of the Tainan Student Counseling Center, the CCRC took advantage of a nationwide mandatory meeting to promote the VEC model and its practical teaching and testing materials. We successfully attracted four other counties to consider the VEC model and CG for their mandatory career guidance by the TMOE. In total, five of the 23 total counties of Taiwan were interested in our VEC model and CG.

Multiple-Win Effect By the Strategies of Mandating, Attracting, and Simplifying

By reflecting on our action process, we found the three useful strategies of mandating, attracting, and simplifying. Furthermore, the project results met the five indexes of interconnectedness (Liu, J. et al., 2008). This project included administrators, researchers, and teachers (building social relations). We required feedback and the core team met every 3 months to make adjustments accordingly. For participants' reflection (reflexivity), VEC workshops attracted one third of all the guidance teachers in Tainan and increased their appreciation of a virtual existential career view. In terms of empowerment, the participants were encouraged to provide feedback and seek consultation and resources. As a result of their feedback in the first year, a VEC curriculum and CG were established. The strongest evidence of social change is that more than a fourth of counties in Taiwan have subsequently invited our team to share our VEC model, VEC curriculum and CG.

Outcome and Evaluation of our VEC Curriculum

We did have some positive feedback about the effects of our VEC curriculum during the second year. Nevertheless, as this project took place in the field, it was not possible for guidance teachers to implement the VEC curriculum in a standardised form and to undertake pretests and posttests; thus, the positive feedback during the second year lacked methodological rigor. In the third year, to examine the effect of our VEC curriculum more precisely, a class of 30 junior high school students was instructed by a VEC-trained guidance teacher for three class periods, 45 minutes per period. The classes included instruction of exploration of self and occupation information, the introduction of the VEC's career evolution concepts, and the administration and interpretation of the three career evolution tests. The students were encouraged to collect and analyse objective information (*yang*) and to use expressive means (such as narratives or collages) to creatively construct their career visions (*yin*). Figure 1 is a collage of a student from the class. In this collage, the student identified his occupational interest based on the CCN Occupational Interest Inventory (*yang*) and put together information collected from life experience (*yin*) and CG (*yang*) in an artistic way (*yin*).

According to *t* test results in Table 4, the immediate impacts of the VEC career classes included significant improvement of resilience, adaptation and liking of career decisions reported by the students. Given that the three class periods were only 135 minutes in total, such a result was impressive. It showed that a *yin-yang*-blending career guidance course might empower students to handle career uncertainty, challenges and difficulties, as well as achieve harmony in situations of complexity and conflict. More importantly, students reported that by exploring objective and subjective occupational information using the CCN Occupational Interest Inventory, and practising both *yin* and *yang* career strategies and career development capacities, they felt more positive about their career decisions.

Future Vision of Living up to the *Tao*

This project was designed to promote a new career view based on the *Classic of Changes*, including appreciation of and mastering uncertainty. Its real-world practice happened when the Taiwanese government made a dramatic change to secondary education called the 12-Year Basic Education. This change required school staff and faculty to provide career guidance to assist students' career development, especially the educational choice of junior high school students after their graduation. Even with the uncertain nature of this task and the trend of the current knowledge-based economy, the TMOE requires educators to use traditional P-E fit concepts. We used this opportunity to advocate our VEC model to provide a better career model and to assist the teachers and the TMOE to implement career guidance for junior high school students.

This project fulfilled and went beyond the mandatory requirements of the TMOE's 12-Year Basic Education. Our VEC model improves the traditional career guidance model. The modified VEC career curriculum is simple and easy to administer, so that it attracts school

Table 4

The *t* Test Results of VEC Pre- and Post-Tests

Subscale	Pre-test mean	Post-test mean	Mean difference	SD	df	t
Career evolution style						
Controlling	2.94	3.15	− .21	.80	28	− 1.44
Appreciating	3.54	3.52	− .02	.69	26	.17
Career evolution capacity						
Analysis	3.53	3.69	− .16	.72	26	− 1.36
Resilience	3.21	3.45	− .24	.74	29	− 2.26*
Adaptation	3.36	3.67	− .31	.80	27	− 2.27*
Aspiration	3.73	3.88	− .14	.69	29	− 1.04
Career evolution status						
Found a career direction accepted by me and others	3.43	3.47	− .03	.89	29	− .21
Found a practical career direction	3.47	3.33	.13	.94	29	.78
Like my career decision	3.63	3.93	− .30	.79	29	− 2.07*
Actively prepare for my career goal	3.30	3.33	− .03	.85	29	− .22
Be confident in pursuing my career goal	3.27	3.23	.03	1.16	29	.16

Note: * $p < .05$

Figure 1

Example of a student's work in the VEC class.

Note: Chinese words at the top mean 'investigative type' (one of Holland's interest types). The Chinese words in the centre mean 'computer engineer', an investigative type of occupation; the words in the middle circle, as information collected from the student's life experience, mean: (1) studying all kinds of hardware, software, and programing; (2) developing new-tech products; (3) repairing various electronic products; (4) writing programs; and (5) working with a lot of wires and equipment. The words in the outer circle, as information collected from CG, mean: (1) designing and testing computer hardware, software, and operation systems; (2) innovating and developing computer hardware and peripherals; (3) monitoring and repairing equipment to maintain stable function of computer systems; (4) writing and maintaining programs to handle particular affairs; and (5) assembling and modifying equipment and spare parts in case of need.

guidance teachers to use it. Guidance teachers also receive professional training. The resources of teaching materials, the CG, and professional consultation have been established and are available to the public. The successful teamwork demonstrates an example of good collaboration among teachers, government agencies, student counselling centres, and academia. Our action results demonstrated effectiveness in terms of the five indexes of interconnectedness (Liu, J. et al., 2008).

The empirical support of the effectiveness of our VEC curriculum shed light on further elaboration of *yin-yang* blending career guidance. In the field in Taiwan, modernist career practitioners who neglect the power of self-constructing tend to utilise the yang career strategies only, shown in the P-E fit column of Table 1, while postmodernist career practitioners who underestimate the importance of objectivity tend to focus on yin career strategies only, shown in the postmodern column of Table 1. It is expected that both groups of practitioners might benefit from a yin-yang-blending approach. Furthermore, a movement toward yin-yang-blending career guidance might induce profound social change in terms of

Taiwanese people's career development. Our VEC curriculum is one example of yin-yang-blending career guidance. Future research might: (1) examine the effectiveness of our VEC curriculum with more rigorous methodology, (2) develop and testify VEC curricula for diverse populations, (3) investigate thoroughly our VEC model from both theoretical and practical perspectives, and (4) innovate various yin-yang-blending career guidance approaches derived from the *yin-yang* philosophy of the *Classic of Changes*.

Our success with using the combination of mandating, attracting, and simplifying strategies has a theoretical value for social change. The TMOE has the power and resources to facilitate a social change. Our professional knowledge has the power to establish a creative career guidance model based on the *Classic of Changes*. We used the rational part (*yang*) of the CG and VEC curriculum to support the TMOE's career guidance policy, and the TMOE permitted us to use their power and resources to promote the intuitive part (*yin*) of the CG and VEC curriculum. Western action research has its root in critical theory and considers political power and social resources as the keys to social change. According to such a perspective together with the TMOE we should have enough power and resources to reinforce our CG and VEC curriculum. Nevertheless, from field observations and communications with guidance teachers, we realised that although guidance teachers are subordinates of TMOE and have little political power and social resources, they do have implementation privilege. Only when we transferred our power to offer them *neng* (能, abilities) and *fang* (方, method) with *simplifying*, were they willing to move from an administrative role (completion of the TMOE's request) to a professional role (devotion to career guidance; Yao, 2012). This power of implementing privilege is well stated in the Chinese saying 'the superiors can make policies and the subordinates always have strategies to circumvent them'.

The significant role of simplifying indicates that the key to successfully implementing an action project is to empower as well as enable the first line executers. The virtue of simplifying reflects the following statement from the *Classic of Changes* (http://ctext.org/zh):

> Qian [the Creative] is for easy knowledge and Kun [the Receptive] is for simple implementation. Easy knowledge enables easy understanding and simple implementation provides an easy path to follow. People like knowledge that is easy to understand and they can gain success if the path is easy to follow. . . . If things can become easy and simple, people can obtain all the knowledge. When people obtain all the knowledge, they will successfully exist in between Qian [Heaven] and Kun [Earth].

The effectiveness of the three precepts of mandating, attracting, and simplifying instead of one or two alone illuminates wisdom of social change. As professional institutes, the TSCC and CCRC use *mandating* to take advantage of their superior political power and social resources, *attracting* to awaken the virtue within the subordinates, and *simplifying* to relieve the burden on the subordinates

and make the strategies of mandating and attracting work. This combination of strategies creates a multiple-win situation for the TMOE (the superiors), guidance teachers (the subordinates) and our research team (the professionals). It demonstrates the wisdom of the *Classic of Changes*, as what is revealed in the *yin-yang* fluxion principles of *mutual completion and enhancement*, *generation by opposition*, and *joint production*, *inclusive opposites* are the power and energy of the necessary harmonising process underlying social changes; through harmonising, elements are brought into a dialectic relationship and are thereby constructed to form a new organism. The effectiveness of the three strategies also echo the Confucian ideal of inward sageliness and outward kingliness. In our experience, the first line workers' strategies of circumventing policies can defeat all kinds of legal reinforcement promoted by Hanfeizi. We need to extend our parental love to take care of those implementing a new system. That is to say, professionals, government members, and any kind of superiors in social change projects need to cultivate their own relational kindheartedness and build up benevolent relationships with their subordinates before the superiors can provide a helpful service to people or induce valuable social change. Future research may investigate the relationships among the strategies of mandating, attracting, and simplifying from the perspective of Chinese *yin-yang* philosophy.

With our VEC model, we began with an intention of assisting individuals to handle career issues as well as to achieve the *de* (德性, virtue) and to live up to the tao between heaven and earth, which had been the essential wisdom of the *Classic of Changes*. The research findings drew our attention to the fact that the superiors in social change projects need to achieve the *de* and to live up to the tao to induce social change. With reflexivity, not only the students who participated in our project learned to apply Chinese *yin-yang* philosophy to their career development, but also the 'superiors' in our project learned to apply Chinese *yin-yang* philosophy to career guidance and social progress. The so-called 'superiors' included ourselves (as action researchers and career professionals) and members in our core cooperation team (as career coordinators or professionals). This reflexive element is also the Confucian wisdom derived from the *Classic of Changes*. Chinese *yin-yang* philosophy is applicable to many situations, and our VEC model is a particular instance of it in a particular context. Future research may investigate various applications of Chinese *yin-yang* philosophy to facilitate social science to catch up with rapid change in the era of knowledge-based economy.

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Endnotes

1 It is important to note that Confucian philosophy draws from *yin-yang* philosophy, which is older, and functions as a root metaphor for Chinese culture; see J.H. Liu (2014)

2 The VEC model is renamed from the TSG model, a model of career development touching the sky yet grounded (Liu, S., & Wang, 2014; Liu, S., Wang, C., Deng, Keh, Lu, Y., & Tsai, 2014). The new name is to highlight the ethico-spiritual aspect of the *Classic of Changes*.

3 The term *career vision* is based on a narrative-and-phenomenological perspective. While the more widely used terms *career aspirations* and *career expectations* focus on specific educational or occupational goals (such as going to medical school or becoming a doctor), career vision covers more holistic directions of career (such as helping others), or delineated or portrayed pictures of ideal lives (such as being a doctor, working at a superior hospital and a top-ranking medical school at the same time, having a supportive husband, and living with one's parents and children).

4 According to the *mutual completion and enhancement*, *generation by opposition*, and *joint production* principles underlying the *yin-yang* fluxions, our VEC model transcends the specialist and generalist dilemma of higher education. All kinds of specialists or generalists are actually at various points on a specialist-generalist continuum (Ludlow, 2014; Nicholson, 2005; Petrinic & Urquhart, 2007; Phillips, 2008; Smith, 2005), students in all school levels, including all higher education institutes, need to practise both *yin* and *yang* projecting strategies as well as pursuing career visions reconciling the ideal with the realistic.

5 Tainan is one of the five municipalities directly under the central government in Taiwan. It is located in the southern part of Taiwan, with about 2,192 sq km and 1,880,000 people.

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