
Title	Vocational psychology and career counselling in Singapore: Research and development
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Source	A. G. Tan & M. Goh (Eds.), <i>Psychology in Singapore: Issues of an emerging discipline</i> (pp. 60-82)
Published by	McGraw-Hill Education (Asia)

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Citation: Tan, E., & Goh, M. (2002). Vocational psychology and career counselling in Singapore: Research and development. In A. G. Tan & M. Goh (Eds.), *Psychology in Singapore: Issues of an emerging discipline* (pp. 60-82). Singapore: McGraw-Hill Education (Asia).

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CHAPTER 4

Vocational Psychology and Career Counselling in Singapore

Research and Development

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INTRODUCTION

Culture and work intersect with interesting and dynamic results in Singapore – a small island nation that literally sits at the crossroads of Southeast Asia. Singapore's independence as a sovereign democratic nation arrived in August 1965 after separating from the merger with Malaysia. It is important to start this chapter at this nation's independence for several reasons. Firstly, the failed merger with Malaysia, Sarawak and North Borneo (now Sabah) meant that Singapore, as a small island nation, no longer had the benefit of any natural resources other than a natural harbour and its people. The unique consequences of such a scenario for the development of the country's economy, and hence specific career opportunities and the world of work, will be apparent throughout this chapter and discussed in the final reflection. Secondly, the date of recent independence, for career development historians, also suggests that the country benefited from the landmark works of Crites (1969), Gottfredson (1981), Holland (1966, 1985), Super (1957, 1983), and Super, Stariskevesky, Matlin, and Jordan (1963), as guideposts for setting up career counselling applications in a

developing Asian economy. Thirdly, this country's short history of 35 years will reflect a relatively brief history of vocational psychology in Singapore. Finally, the career counselling efforts, programmes, and resources that have evolved in such a short period of time are rather remarkable in their breadth and effectiveness.

In this chapter, some definitions of terms used in vocational psychology will first be clarified. The chapter then outlines the research process that sought to transplant and validate existing career theories to Singapore's social and economic context, and reviews the development of career programmes and practices in this country. The final section reflects on the past, present and future of vocational psychology and career counselling in Singapore.

SOME DEFINITIONS

Work is defined differently in different cultures. As this chapter aims to introduce readers to the study of work in Singapore, it will be beneficial to first clarify some of the terminology that will be used. Peterson and Gonzalez (2000), in their attempt to define work, quote Tolbert (1980) in noting that the three terms *career development*, *vocational development* and *occupational development* are used interchangeably. They refer to

the lifelong process of developing work values, crystallizing a vocational identity, learning about opportunities, and trying out plans in part-time, recreational, and full-time work situations. Career Development involves increasingly effective investigation, choice, and evaluation of occupational possibilities. (p. 31)

Tolbert also defines *career* as being "the sequence of occupations in which one engages" (p. 31). Peterson and Gonzalez (2000) refer to *vocational psychology* as

a social and behavioral science that has attempted to explain, predict, and control how people choose their initial occupations and pursue their ongoing careers. (p. 3)

In contrast, they quote Tolbert (1980) in defining *career counselling* as "planning and making decisions about occupations and education" (p. 32).

It is interesting to note the thesis by Super and Hall (1978) that the word *career* derives from the Latin word *carrus*, meaning, "chariot".

Both *career* and *chariot* elicit a sense of movement through or progress over time, particularly emphasizing the element of competition, with the goal of placing first. (Peterson and Gonzalez, 2000, p. 4)

Our emphasis, as reflected in the title of this chapter, focusses on two main terms: *vocational psychology* and *career counselling*. We use these phrases to reflect both the science and practice respectively of career interventions in the Singapore context. That is, *vocational psychology* is used when referring to the research and science of work in Singapore and *career counselling* is used in reference to the programmes and practices that assist individuals to plan and make decisions about work.

VOCATIONAL PSYCHOLOGY AND CAREER COUNSELLING BEGINNINGS

Just as vocational psychology's introduction in America in the early- to mid-twentieth century had much to do with the massive industrial expansion of those times, readers will notice in this chapter similar historical markers and cultural principles that guide the development of vocational psychology and career counselling in Singapore. As mentioned earlier, Singapore's geographical location and limited natural resources meant that the economy relied considerably on human resources for such professions that maximized its location at the crossroads of Asia (e.g. as a finance and banking centre, shipping and shipbuilding, and other entrepôt trades). The country needed any and every able person to be in the workforce. A premium was therefore placed on preparing citizens for the workforce through educational institutions. However, before the 1970s, career counselling was hardly practised in the schools and virtually non-existent in the community. Meanwhile thousands of young people left the school system yearly and drifted into the labour market, ignorant of their own vocational aptitudes and ill prepared for employment. The result was poor person-job match and, in many instances, job dissatisfaction and poor productivity.

Concerned that lack of career counselling for school-leavers would lead to wastage of manpower, the National Productivity Council formed a task force in 1984 to "focus attention on the issue of career guidance in schools and with the view to develop better match between the future

work force and jobs and ultimately improve productivity” (Sim, 1985, p. 3).

The first project undertaken by this task force was a national survey on 950 final year students from 30 randomly selected high schools to ascertain the status of career counselling in the schools. The findings revealed a very dismal picture. As many as 95% of the students had not received any form of career counselling prior to leaving school. More than 60% expressed an urgent need for some kind of career guidance (Khor, 1987). Although two-thirds of the school personnel surveyed recognized the urgent need for career counselling for their students, they realized that this service was sadly lacking in the schools due to lack of resources and trained manpower. It was therefore not surprising that in a related study, interviews with company personnel from leading industries revealed that young job seekers were generally ignorant of occupational information, had little career direction and lacked job-seeking skills (Sim, 1985). These findings helped to raise public awareness of the lack of, and need for, career counselling in schools but there was no follow-up.

The turning point came in December 1986 when the then Minister of Education Dr Tony Tan made a public announcement upon his return from a study tour in the United States and the United Kingdom to share his observation and conclusion that although Singapore schools were doing a great job in preparing students for academic excellence, the affective aspect of education such as student counselling and career guidance were lacking in schools. In their published report entitled “Towards Excellence in Schools”, the twelve principals who had accompanied the Minister on his study tour also stressed the need for career counselling in schools (Ministry of Education, 1987).

This series of events served to bring career counselling to the forefront to become the focus of attention of educators and the authorities. In a matter of months, the Pastoral Care and Career Guidance Branch was set up at the Ministry of Education to devote its efforts to the planning and implementation of guidance programmes in schools. From 1988 to 1993, career counselling initiatives were introduced to secondary schools in six phases – 17 pilot schools in 1988, 12 schools in 1989, 19 schools in 1990, 6 schools in 1991, 20 schools in 1992 and by 1993, all the remaining 66 secondary schools were phased in. Officially career counselling had reached all the secondary schools in the country.

VOCATIONAL PSYCHOLOGY IN SINGAPORE: VALIDATION OF CAREER DEVELOPMENT THEORIES

With the benefit of a growing knowledge base of career development theories in the west, efforts were made to investigate the relevance and applicability of these theories to Singapore's Asian and multiracial context. The wide collection of research on vocational psychology conducted in Singapore is beyond the scope of this chapter. For the purposes of this chapter, therefore, this next section will focus on the applicability of landmark career development theories to the Singaporean context and list other research that have been conducted in Singapore for critical career development variables. Readers are encouraged to refer to Tan (1998) for a more comprehensive review of research on vocational behaviour in Singapore.

Jepsen (1984) identified two fundamentally different approaches in the investigation of vocational behaviour, namely, the structural perspective and the developmental perspective. The major distinction lies between those who emphasize that development results in the establishment of stable qualities such as interests, abilities and personality traits (Gottfredson, 1981; Holland, 1966) versus those who emphasize the development of qualities that undergo orderly changes over time such as the conception of self as worker and the capacity to work (Crites, 1969; Super, Stariskevesky, Matlin, & Jordan, 1963). In the past decade, three large-scale validation studies were conducted to check out the validity of some of these theories in the Singapore context.

Super (1983) viewed career development as a developmental process from childhood to retirement in which an individual goes through different vocational life stages to develop and implement a career self-concept. Each vocational life stage is characterized by certain tasks that the individual encounters and with which one must successfully cope before one can progress to the next stage. Super identified two main vocational developmental tasks that occur during adolescence, namely, career exploration and crystallization of a career preference.

To validate Super's theory, a national survey was conducted in the mid 80s to investigate the career developmental pattern of adolescents. Using the cross-sectional design and stratified random sampling method, a sample of 1,380 adolescent students aged from 12 to 18 years was drawn from 17 secondary schools, covering 1% of the total student population and 10%

of the schools. Stratification was based on geographical location, type of schools and distribution of the students in terms of age, gender and curriculum. The instrument used was the Australian version of Super's Career Development Inventory (CDI, Lokan, 1984).

Although the resulting career development profile of the students showed a general weakness in career exploration and career decision-making skills, there was strong evidence that career development does mature with age. Statistical analysis of the data showed significant age differences in the students' readiness for crystallization of their job preference as well as in their mean scores in all four aspects of career development as measured by the CDI, namely, career exploration, career planning, world of work information and career decision-making. While the girls in the sample fared better in the areas of occupational knowledge and career decision-making, no significant gender differences were found. These findings lent support to Super's theory and confirmed its validity in the Singapore context (Tan, 1989a).

Contrary to Super's developmental approach, Holland postulates that people can be categorized as predominantly one of six personality types, namely, Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC). He believes that each type is a product of a characteristic interaction among a variety of cultural and personal forces including peers, biological heredity, parents, social class, culture and the physical environment. Out of these experiences an individual first learns to prefer some activities over others. Later, these activities become strong interests that lead to the development of a special group of competencies. Finally, a person's interests and competencies create a particular disposition or personality type (Holland, 1985).

To check out the validity of Holland's theory, his Self Directed Search (SDS) was given to a sample of 1,500 secondary school students. Two observations were made. First, the Item-subscale correlation of the SDS showed that most of the items contributed to the respective subscale. Second, the factor analysis of the Activity items showed distinctively six factors corresponding to the six personality types. In the Competencies Section, however, the *RIAC* types came out clearly although some Social items loaded on the Enterprise scale and vice versa. Nevertheless there was sufficient empirical evidence to support Holland's theory. It should be noted, however, that while Holland's theory of vocational personalities

has validity in the Singapore context, there are cultural differences in the career profiles of professionals in the two countries. For example, architects in Singapore were found to be more *enterprising* while their American counterparts have more *investigative* traits, and journalists in Singapore are more *social* than *enterprising* compared to their American counterparts (Tan, 1995a).

Gottfredson (1981) traced the development of occupational stereotypes, the sex-role appropriateness of occupations, prestige strivings and vocational interests from age three to adult and developed the circumscription-compromise theory. In circumscription, individuals first eliminate occupations that are unacceptable to them on the basis of occupational “sextype” and prestige. The result would be a “Zone Of Acceptable Alternatives” (ZOAA), within which people explore occupations of acceptable “sextype” and prestige, and would specify the most job-self compatible options to be their occupational aspirations. These options range from their ideal (most desired job), to the realistic (expected job) and to what is just acceptable (tolerable job), depending on reality factors that may require individuals to adjust their aspirations resulting in some kind of compromise. To check out the validity of Gottfredson’s theory, Khor (1994) administered a Student Occupational Aspirations Questionnaire and a Job List to 1,695 secondary four students. The subjects nominated a Rejected, Ideal, Expected and Tolerable Job representing their circumscription/rejection-preference decisions. Their perceptions of these occupations in terms of job “sextype”, job status, career self-efficacy, reality constraints, and reasons for circumscription-compromise were examined.

The students in the sample rejected unacceptable occupations on the basis of inappropriate “sextype”, unacceptable level of occupational status and lower career self-efficacy expectations. Educational and social-psychological constraints were perceived as the main circumscription reasons. In contrast, the job status of occupational aspirations was significantly different from that of rejected occupations. The job “sextype” of occupational aspirations was also perceived to be more gender-appropriate than that of rejected occupations. Males generally preferred male-dominated and sex-neutral occupations. Females were more willing to choose cross-gender occupations than males. The students also compromised job “sextypes” and job status when aspirations were compromised. In making job “sextype” compromises, females reverted to

choosing female-dominated occupations while males tended to maintain their “sextype” preference. Such findings generally supported Gottfredson’s theory by confirming the construct validity of circumscription and the zone of acceptable alternatives (Khor, 1994).

As mentioned earlier, this chapter does not permit the elaboration of all the other studies conducted. Readers should however note other research domains of vocational psychology in Singapore that yielded interesting and significant results such as: career maturity (Chew, 1990; Lim, 1994; Lim, 1995; Rahim, 1996; Tan, 1989a; Tan, 1989c); vocational interests (Tan, 1990a, Tan, 1990b); sex-stereotyping (Choong, 1990; Chong, 1994; Tan, 1988b; Tan, 1992a); school influences (Khor, 1987; Lui, 1989; Tan, 1988a; Tan, 1989a); home influences (Tan, 1988a; Chong, 1994); work values (Chew, 1992; Tan, 1989b; Tan, 1992b; Tan, 1994); and job satisfaction (Lam, Foong, & Moo, 1995; Low, 1993; Wong, 1988). Overall, vocational psychology research conducted in Singapore thus far suggest that Singaporeans in general experience the same career variables that contribute to an individual’s career decision-making and career development process when compared with available research theories and models. That is, to understand the career decision-making processes that an individual in Singapore experiences, the domains mentioned above must be considered as variables.

STAGES OF DEVELOPMENT IN CAREER COUNSELLING

From the ongoing research presented in the previous section, this section looks at the implementation of programmes and activities that help individuals in Singapore plan and make decisions about careers. It is interesting to note that while much of the comparative research focussed on theories mostly from the United States, the development of actual career counselling practice mirrors more closely the methods of British schools – the model that Singapore’s education system traditionally follows. This outcome is possibly more accidental and evolutionary than deliberate. The development of career counselling programmes in Singapore is also noticeably more evolved in schools and in the educational system, with much of the leadership and training provided by the Ministry of Education and the National Institute of Education at the Nanyang Technological University. The Ministry of Manpower (formerly known as the Ministry

of Labour), while playing a significant role in the structure of the labour and job market in Singapore, does not fall neatly into the vocational psychology and career counselling domains as earlier defined and will not be treated in-depth in this chapter. It is important, however, to notice the recent progressive efforts made by the Ministry of Manpower, including the name change, that acknowledges proactive career counselling initiatives. An example is the recent creation of the one-stop career centre known as CareerLink@mom, started in July 2000, where job seekers can access occupational information, engage in self-assessment through the use of interactive computer software and receive face-to-face counselling to facilitate their career exploration (*The Straits Times*, January 6, 2001).

The Stages

Reviewing the development of career counselling in Singapore, one can conclude that career counselling practices in Singapore schools went through three stages within a span of three decades. The first stage, lasting almost two decades from the mid 1960s to the 1980s, was focussed on information giving. The late 1980s saw the introduction of the curriculum approach when career education in schools was the order of the day. The third stage, from 1996 to the present, is characterized by the integration of technology into career counselling, the emergence of professional training and the development of indigenous resource materials.

The Information-Giving Stage (1965–1986)

In the early years of nation-building in the mid 1960s and the 1970s, the top priority of the government was to survive as a nation politically, economically and socially. Thus, much effort was spent on providing public housing, fostering social cohesion, developing a national identity and creating jobs to support the economy. Even the education system was “survival-driven”, focussing mainly on the education of the masses and raising the standard of literacy. There was also a shift in emphasis from academic to technical education to provide a manpower base for industrialization (Yip & Sim, 1990). In the workplace, the goal was to create jobs and build up a workforce. In the schools, the urgent task at hand was to educate the young to prepare them for work. It followed that in career counselling practices, the focus was job placement for adults seeking employment and information for students to familiarize them

with the world of work. Although the Ministry of Education had a Career Guidance Unit staffed with Career Guidance Officers, its primary function was to provide occupational information booklets as resource materials for the schools. All the secondary schools were asked to appoint a career teacher whose main responsibility was to make monthly visits to the Guidance Unit at the Ministry to collect these career information booklets. Back at the schools these booklets were placed on library shelves for display as resource materials for the students.

The information-giving approach was based on three assumptions – firstly, that the students were motivated to use the materials provided; secondly, that they knew beforehand what kind of information to look for, and thirdly, that they knew how to use the information once they had located it. However, Tan (1995b) noted that providing information, although necessary, was not sufficient in serving the career needs of students. Without encouragement and proper guidance, the students may not be motivated to look for information themselves. Even if they can locate the resources, they may not be able to use the information meaningfully. In 1979 the Career Guidance Unit at the Ministry of Education was disbanded for two reasons. Firstly, the system in operation then was considered ineffectual as the mere distribution of descriptive pamphlets on occupational information without proper guidance from trained personnel was not only inadequate, but could misguide the students. Secondly, as the Ministry of Labour was already active in providing occupational information, there was no necessity to duplicate that function (Sim, 1985).

The Curriculum Stage (1987–1995)

To a certain extent the development of career counselling in Singapore is linked to the evolution of its education system, which, in turn, is influenced by the social, economic and governmental forces of the country. With a stabilized economy and growing affluence, the Singapore education system entered a new phase of development in the late 1980s and early 1990s where the goal was “efficiency” rather than “survival”. Since Singapore had survived as a nation, the next step was consolidation and efficiency. So educational policies were “efficiency-driven”, looking at what was needed to achieve excellence in education and seeking the best ways to achieve the goals with optimal use of resources. Streaming and curricular changes

were introduced to cater to different ability groups and reduce educational wastage whilst values education was emphasized to promote social cohesion. The introduction of Pastoral Care and Career Guidance into Singapore schools was yet another attempt to make the education system more “efficient”. This move also ushered in the curriculum stage of career counselling when career education became a common practice in schools.

As reflected in the guidelines issued by the Ministry of Education, pastoral care in the Singapore context is defined as “encompassing care for the total welfare of the student” (Ministry of Education, 1995). It implies a holistic approach to education where not only the academic development of the students is key, but also the personal, social, moral and career development of the individuals. In some ways the term “pastoral care” in the Singapore context is synonymous with the term “guidance” used in the US, Canada and Australia. In these countries, the term “guidance” is used to describe the process of developing personal, social and career-related skills.

Rogers (1984) identified two approaches to career education – the “addition approach” and the “infusion approach”. In the “addition” or “careers department approach”, a specialist careers department is created in the school, administered either by internal school staff or external specialists. One advantage of this approach is that tasks and responsibilities are well defined. Since the service providers are usually specialists, the students are likely to receive quality professional service. Also maximum efficiency can be achieved with minimum staff involvement.

There are also disadvantages to the “addition” approach. Firstly, as career counselling is conducted by specialists outside of curriculum time, there is the danger that career counselling may become divorced from the rest of the curriculum in an academic versus pastoral care dichotomy. Secondly, the smallness of the Careers Department makes it hard to gain recognition and cooperation from the rest of the staff. Also this mode of service delivery may lead the students to perceive career counselling as just another subject and thus lose sight of the link between their schooling experience and career planning.

The alternative approach, often called the “infusion” or “the whole curriculum approach” is gaining popularity in Singapore. In this approach career education is dispersed throughout the curriculum. Although there may be a central figure designated as the “careers coordinator”, the

responsibility of providing career counselling is distributed among the teaching staff. Subject departments are expected to take note of the changing vocational implications of their own discipline and “infuse” career counselling into their subject teaching, thus linking the subject matter with the world of work.

One advantage of this “infusion” approach is that career guidance becomes an integrated part of the curriculum, giving meaning to the whole process of education. Also, when the responsibilities of providing career counselling are dispersed among the teachers, the use of resources is maximized. However, there are also disadvantages to this approach. For example, when the entire teaching staff is involved in giving career counselling, staff training can be problematic, especially when there is staff turnover. Besides, the large number of staff involved increases the problem of management, communication, organization, monitoring and evaluation. Unmotivated and inadequately prepared, some staff may lack commitment and become apathetic to the goals of career counselling.

The implementation of the Affective and Career Education (ACE) programme in Singapore schools is characteristic of the “infusion” approach. Launched in 1997, the ACE evolved from the Pastoral Care and Career Guidance (PCCG) programme that was introduced in the 1980s. The aim of this programme is to develop “well-balanced individuals who are able to face challenges, manage change, work productively, live compassionately and contribute to society” (D’Rozario, Jennings, & Khoo, 1998). The ACE covers five key areas for developing life-skill competencies: Personal Effectiveness, Interpersonal Effectiveness, Effective Learning, Transition to Work and Fostering a Caring Community. The programme is introduced to the students through group guidance activities conducted within curriculum time. These weekly sessions are designed to help the students develop self-awareness, enhance social skills, learn decision-making and problem-solving skills and engage in career exploration and career planning. Since 1997, a similar programme called “Life Skills for Effective Living” has been implemented in primary schools as well.

In the context of Singapore, a combination of both the “addition” and “infusion” approaches is being practised in many secondary schools. Adopting a “whole school” approach, career education is viewed as part and parcel of the Affective and Career Education programme to be provided for all the students. Besides the ACE curriculum, subject teachers are

expected to “infuse” career education in their subject teaching. Such sharing out of responsibilities is characteristic of the “infusion” approach. On the other hand, a fair number of Singapore schools assign a specialist teacher to provide career counselling to students through planned group guidance activities as well as face-to-face individual counselling outside of curriculum time. Such a practice is typical of the “addition” approach.

The Integration Stage (1996 – Present)

Watts (1988) describes the “integration” stage of career counselling as one where the responsibilities of giving students career guidance is shared among career teachers, classroom teachers, school counsellors, parents and members of the community. In fact, research that has been done in various countries on the occupational choices of teenagers is virtually unanimous in showing that the most important influence on teenagers’ career decision-making is neither the career teachers nor the classroom teachers but their parents. The same was found to be true in the Singapore context as confirmed by a local research study cited earlier investigating the influence of home and school on the career development of adolescents (Tan, 1988a).

By mid 1990s, many Singapore schools were moving into the integration stage of career counselling. More and more, the career guidance teacher is viewed as a facilitator coordinating various types of career guidance activities rather than the expert with all the answers. One school summed up its career counselling activities as comprising the following: the conduct of occupational surveys to assess the guidance needs of students; individual counselling and group guidance on subject combination, learning of job application and job interviewing skills; group sessions to develop decision-making and problem-solving skills; the organization of “career weeks” and “career seminars”; visits to industries; and finally, work shadowing and work experience programmes during school vacations to allow students the opportunities to experience first-hand what working life is like (Ong & Chia, 1994).

While career education continues to be part and parcel of the school curriculum in the Integration Stage, the new emphasis is on individualized counselling to help students in developmental, pre-employment career planning. Such a move is consistent with the government’s current policy of implementing an “ability-driven” education that seeks to develop the full spectrum of talents and abilities in every school-going child. This

priority of helping school children to identify, assess and develop their talents and abilities also highlights the importance of equipping teachers with the appropriate skills and of employing well-trained personnel able to do the job properly.

Responding to this training need, the National Institute of Education developed a comprehensive eight-module in-service diploma programme covering all aspects of pastoral care and career guidance (Tan, 1990). In January 2001, this in-service programme in pastoral care and career guidance was upgraded to two in-service programmes, namely the Advanced Diploma in Guidance and Counselling and the Advanced Postgraduate Diploma in Guidance and Counselling. The new curriculum places greater emphasis on teaching counselling skills and also includes a practicum component. In the meantime, training in career counselling is also made available to trainee teachers in preservice education.

To bridge the gap between the school and the world of work and to enhance the effectiveness of the career guidance coordinators, the Ministry of Education launched a “teacher-in-industry” project in 1992 whereby the career guidance teachers themselves were attached to industries to experience at first-hand these work settings (Tan, 1995b). An evaluation report of this project revealed that the scheme had benefited all parties concerned. The teachers felt that first-hand experience of the working environment enabled them to better prepare their students for the transition from school to work. For the industry personnel, the scheme established a two-way communication channel between the companies and the schools and in this way linked the industries to the potential workforce (Ministry of Education, 1993).

Another distinctive feature of the Integration Stage in career counselling is the use of technology. It is believed that computer-assisted career guidance enjoys several distinct advantages over traditional career counselling approaches. Firstly, it organizes occupational information in a systematic and rigorous way and is therefore much more comprehensive. Secondly, the use of a computer enables students to meet their own personal needs by rapidly identifying the relevant information. Thirdly, although rather expensive to develop initially, computer-assisted career guidance saves cost in the long run by compiling a comprehensive range of occupational information in a neat package that can be easily updated. Lastly, the computer software can serve as a backup for the career guidance teacher

by handling time-consuming tasks such as information dissemination as well as the administration, scoring and interpretation of assessment instruments, thus freeing the career teacher to concentrate on the more personal facets of career counselling such as face-to-face consultation and group counselling.

With the current emphasis on information technology in Singapore as well as the availability of sophisticated computer facilities, there has been much research and development effort in recent years to develop computer software to enhance career counselling practices in schools. One such computer software is Jobs Orientation Backup System or JOBS. This interactive computer-assisted career guidance package is designed to provide up-to-date occupational information and to facilitate self-assessment of career interest, vocational aptitudes and work values. Based on the analysis of the data provided by the user, the computer programme will produce a career profile of the user and search the database to recommend a list of occupations that are compatible with the user's profile. Developed by a team of researchers at the National Institute of Education and launched in 1995, this computer software has been well received and is now widely used in Singapore schools as a guidance tool for career teachers (Tan, 1995c).

REFLECTIONS: PAST, PRESENT AND FUTURE

In the short span of 35 years since gaining independence, Singapore's progress in the field of vocational psychology and career counselling is not unlike its rapid development in economic success. In many ways, the development of vocational psychology and career counselling in Singapore may be characterized as having had the same pragmatic efficiency that permeates daily the educational, social, political and economic mechanisms that drive this Asian country.

A reflection on Singapore's past (1965 – mid 1980s) as a contributor to vocational psychology and career counselling therefore shows the following key milestones:

1. Geographical, natural and political limitations very much determined that Singapore needed to establish a consistently effective workforce because human resource was its greatest asset.
2. Initial efforts naturally turned to maximizing the match between

essential jobs and services and available human resources with minimal emphasis on individual interests or needs.

3. Educational institutions and government labour officials played the greater role of ensuring a properly educated and equipped workforce rather than any particular career counselling specialist or centre.

A reflection on the present (late 1980s to 2001), in contrast to the past when the vocational psychology agenda appeared more reactive to political and economic events, shows a more proactive, informed and measured approach with the following priorities:

1. Research on established career theories and their relevance and applicability to Singapore's Asian and multiracial context.
2. A determined learning attitude that sought out models and programmes that worked around the world in order to implement them at home.
3. Adaptation of theories and models from the US and the UK for Singapore.
4. Recognition that to be proactive is to introduce the career development process as early as possible and in a context with a captive audience. In the case of Singapore, this context was the secondary schools.
5. Development of an innovative, whole-school and holistic approach to school guidance that incorporated career guidance.
6. A collaborative and concerted effort between career educators in higher education and the Ministry of Education to provide the necessary training for and implementation of the career guidance programme in schools.
7. A more coherent and visible presence of career development activities in the form of career seminars, workshops and annual conferences in schools, higher education institutions and nationwide.
8. Introduction of modern user-friendly Ministry of Education Career Resources Centres in various regions of Singapore.
9. To be in pace with the times, the creation of a computer-assisted career guidance system with a local database and that is adapted from the best of other similar systems.
10. A general growing awareness and accessibility for every school student and individual who desires to seek career development.

In reflecting on the past and the present, it can be said that the provision of career counselling has progressed from the rather primitive information-giving stage in the 1970s to the much more sophisticated integrated approach in the 1990s involving advanced information technology and the generation of indigenous resource materials. Similar to how vocational psychology academics and practitioners have aptly responded to the career *zeitgeist* at key historical moments in the nation's development, the future of vocational psychology and career counselling in Singapore will need to address the following to be effective and relevant:

1. In this information technology age and moving into a knowledge-based economy, knowledge becomes obsolete within a short period of time and new jobs are being created all the time. The traditional concept of career development as a linear progression up an ordered hierarchy within an organization or profession is no longer valid. Organizations, as well as the individuals working in them, need to change with time in a lifelong learning process. The term "career" needs to be redefined as the individual's lifelong progression in learning and in work. Career development as a process across the lifespan (Herr & Cramer, 1996; Hansen, 1997) for Singaporeans will need to be researched.
2. Consequently, in practice, existing programmes in career counselling should consider extending their application to a developmentally younger population, say primary school students, as well as towards older adults who continue to change jobs after developing established careers. Naturally, the training of career counsellors will thus have to include early career education and programming as well as career counselling for adults in transition and skills training for job redeployment. The delivery of services particularly for adults in transition need to be highly visible and accessible, possibly in community centres, clubs, via the internet, or even at shopping centres.
3. While the amount of research on vocational behaviour in Singapore is commendable, much of it remains unpublished in manuscripts, reports and theses. It is our belief, in the interactive spirit of science and practice, that proper review and dissemination of data and knowledge can only encourage healthy dialogue among academics and practitioners which will in turn bring about positive change.

innovation and more research for vocational psychology and career counselling in Singapore.

4. Downsizing as a result of the Asian economic crisis towards the end of the twentieth century appears to be more than just a temporary phenomenon as companies and employers see the economic benefits of a smaller payroll. Vocational psychologists, however, have to be wary of what Dent (1995) identifies as “job shock” and its accompanying pain, rattling of consumer confidence, terror, and the “finger pointing” that effects workplace morale. Career counselling will need to effectively address how jobs will be “redeployed, automated, eliminated, and regenerated in forms we haven’t yet imagined” (pp. 6–7).
5. The constancy of change in the face of the workplace suggests that career development must emphasize continuing education and learning. Learning embraces all forms of learning, both formal and informal, just as work embraces all forms of work, paid or unpaid, self-employed or other-employed. The twenty-first century needs a workforce that believes in lifelong learning while coping with rapid changes in many arenas of life, individuals who are willing to strive, take pride in their work and value working with others. Hansen (1997) viewed this as a “complex, comprehensive process of examining critical themes influencing our lives and identifying patterns and strategies which can help us to understand, manage, and perhaps even shape those influences” (p. 23).
6. As Singapore inches steadily from a newly industrialized country to a developed nation, vocational psychology in Singapore will need to revisit the role that work plays in Singaporeans’ lives. Is there any shift in the balance of Bolles’ (1981) three boxes of life: education, work and leisure? Are Singaporeans seeking more job satisfaction and work that allows for a balanced lifestyle rather than just job qualifications matching? Watts (1996) proposed five ways that vocational psychology may summarily perform a practical and enhanced social role:
 - a. Make vocational counselling available to individuals throughout their lifespan in order to enhance occupational development, especially in coordination with training education and employers.

- b. Strengthen the role of career education in schools by providing a foundation for lifelong occupational development.
 - c. Vocational psychology needs to become more constructivist in its approach to help workers develop a subjective career narrative. Clients can take authorship of the role of work in their lives by narrating “a coherent, continuous, and credible story” (p. 233).
 - d. Occupational development services can support individuals by helping them record their achievements, identify their skills and develop a plan of action and goal setting.
 - e. Establish closer links between vocational, financial relationship and stress counselling (pp. 233–234).
7. All the above reflections fundamentally suggest that vocational psychology and career counselling in Singapore, which has been pragmatic and proactive in most parts, continue to implement career development programmes and train career practitioners in keeping with the times. In our analysis, these times require career counsellors to provide more than a matching of people to jobs to encompass comprehensive counselling that incorporates life and work planning. That is, there will be frequent overlapping of career, family, and life issues in counselling. In addition, Peterson and Gonzalez (2000) note that career counselling may also involve counselling for “obtaining, maintaining, and increasing job productivity as well as for those of retirement age who want to continue to remain involved in a productive life” (p. 478).

CONCLUSION

Herr and Cramer (1996) note that career counselling is no longer an exclusive invention of the United States but rather a phenomenon that is practised internationally. The authors also recognize that “approaches taken to career guidance, career education, or career counselling by other nations are colored by their own political belief systems, economic conditions, cultural traditions, and conceptions of free and informed choice of educational and occupational opportunity” (p. 59). Singapore is a good example of the veracity of the former statement. Rather than reinventing the “career wheel”, academics and practitioners tested and adapted existing theories and models to fit the local context and also designed original programmes tailored to fit the educational system and labour needs. More

importantly, career counselling efforts sought to meet the social and economic needs of a developing country with limited resources.

The success of Singapore's economic situation, the productivity and satisfaction of the workforce, and the contentment of the populace are intangibles that reflect the efficacy of vocational psychology and career counselling efforts in Singapore better than any of our intellectual analyses may yield. The ever-changing face of the regional and global economies, coupled with the constant development of Singaporean culture and identity, present many challenges ahead. Feller (1991) concluded that the next 25 years demand that vocational psychology and career counselling "integrate new rules, consider new foundations, and constantly assess gaps between what is needed and what is available. Only then will a client's employment and career development be better served in a world of change" (p. 19). Vocational psychology and career counselling in Singapore will do well to heed this advice.

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